SCOTTISH COMPETITION BAGPIPE PERFORMANCE: SOUND, MODE AND AESTHETICS

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A Thesis Submitted for the Degree of PhD
at the
Royal Conservatoire of Scotland
&
University of St Andrews

2005

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sound, mode and aesthetics.

PhD

by

Simon Alasdair McKerrell

Date of submission: 09/02/2005
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(ii) I was admitted as a research student in October 2000 and as a candidate for the degree of PhD in October 2002; the higher study for which this is the outcome was carried out at the Royal Scottish Academy of Music and Drama between 2000 and 2005.

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Abstract

This study is an ethnomusicological analysis of Scottish competition bagpiping, examining three fundamental aspects of performance: sound aesthetics, performance aesthetics and the modal complex of the core repertoire. Through a mixture of discussions, modal analysis and reflections upon performance, it deconstructs the music of the 2/4 competition pipe march and the aesthetics surrounding competition performance. Focussing on a small number of the world’s leading Highland bagpipers, this research demonstrates how overall sound combined with the individual choices about repertoire and how to play it, results in the maintenance of individual identity. In chapter three, analysis of the 'modal complex', comprising pitch sets, hierarchies, phrasing-structure, the double-tonic, structural tones, melodic motifs and rhythm-contour motifs reveal the characteristics of various modes in the 2/4 competition pipe march. As an insider of this music-culture, I offer a definition of mode based upon motivic content rather than pitch set. The modal complex is framed by an understanding of how pipers themselves think about their competitive tradition. Understanding the concepts presented in this thesis provides an original and holistic picture of how Scottish bagpipe competition performance sounds the way it does.
Acknowledgements

This study would not have been possible without the help of Dr Peggy Duesenberry. Peggy has guided and supported me from the very beginning to the end, over a four year period. Apart from having to deal with me, she had the added problems of illness to cope with; for all her help I am deeply grateful. Dr Gary West is like myself a piper and has wholeheartedly given of his vast knowledge, and for this I thank him.

I would like also to thank Dr James Porter for his help in supervision in the middle of the research. His encyclopaedic knowledge and astuteness were invaluable.

I must thank my family and friends; neither I or they knew the ups and downs that this process would take and they have been helpful and understanding throughout. Celia Duffy and Madeleine Stafford deserve a special mention, particularly where funding and general guidance are concerned. Celia has helped me greatly from beginning this study right through to the final stages. Thank you very much Celia.

In order to research this thesis I had to have financial support and to every grant, trust or individual that has contributed, I offer my sincerest appreciation. They are, in alphabetical order:-

- The Bertha MacDonald Trust
- The EMI Music Sound Foundation
The pipers with whom I had the core discussions for this thesis have all been particularly helpful; Roddy MacLeod M.B.E., Willie McCallum, Chris Armstrong, Angus MacColl, Colin MacLellan, Finlay MacDonald, Nigel Richard and Greg Wilson. I hope that this work reflects their ideas about piping; they are central to this thesis.

I would also like to thank the staff of the RSAMD library, in particular Karen McAulay, Matthew Barr and all the staff of the IT Department at the RSAMD, the staff of Glasgow University library, Jeannie Campbell and the College of Piping, Temple records, Lismor records, the staff of Edinburgh University and Kirsten Jenkins.

Any errors or conceptual muddlement that remain in this thesis are entirely my own.
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Chapter One

Introduction
Introduction

The ability to add distinctive personal touches to what is essentially a conservative tradition, without clashing with its basic aesthetic, is the mark of the accomplished musician (McLaughlin 1990).

This study is an attempt to understand the core elements of a solo Highland bagpipe performance and how they are manifested in the individual performer. I suggest that there are three core elements of a solo bagpipe performance and explore them and their relationship to each other through discussions with leading pipers. These relationships are summarised in diagram 1 (see p6). I focus on three aspects of performance summarised by the three blocks in diagram 1: The sound aesthetics (Chapter 2); the modal complex (Chapter 3); and the performer's aesthetics (Chapter 4).

A central tenet of ethnomusicology is that the human element in performance is fundamental to understanding music. My research objective was to study bagpipe ceòl beag\(^1\) from a practising piper's perspective. Researching ceòl beag therefore involves analysis of performance aesthetics and abstract concepts of intonation, timbre, emotional effect, competition as context and stylistic issues that are inextricably bound up with the musical organisation of the notes to produce humanly organised sound (the phrase coined by John Blacking, 1973:10).

\(^1\) See glossary in Appendix 3 for a description of all piping terms.
Mode is a term that has had many uses throughout history and, after reviewing the literature on mode, I present in Chapter 3 the cluster of modal concepts relevant to bagpipe music. I term this cluster of modal concepts, the modal complex, essentially the grammar of bagpipe music. This study will show that melodic motifs are a core characteristic of the modal complex of bagpipe music and demonstrate how they are used in the modern-day repertoire of solo pipers. Furthermore, no study of bagpipe music can ignore the drones of the instrument: they are a fundamental feature of the bagpipe, and I examine their role in two ways. Firstly, it is my hypothesis that the relationship of the drones to the chanter determines the intonation of the bagpipe scale, and that pipers deliberately tune each note of the chanter to be consonant with the drone tonic. Secondly, I propose that the drones have also played a crucial role in the development of the light music of the bagpipes, controlling the phrasing and structural pitches through the concept of consonance with the drones. This concept is also a controlling factor in the composition of bagpipe tunes, whereby the melody promotes musical relaxation and tension against the drone tonic, giving rise to the formulaic structure of pipe tunes.

The modal complex of bagpipe music is not only fundamental to pipers but is an important foundation for other Scottish instrumental traditions. Many other traditional Scottish instrumentalists play pipe music and hold it in high esteem. A great deal of bagpipe music was composed in
the twentieth century and there are large numbers of pipers in Scotland, largely due to the rise of pipe bands.\textsuperscript{2} For these reasons piping is seen as a strong instrumental tradition that is a rich and varied source for other instrumental traditions to borrow from: Donaldson suggests that "...pipe composers have been the most prolific and original contributors to the popular instrumental tradition of Scotland during the twentieth century..." (2000:3). There has also been a rise in the numbers of mixed instrumental ensembles that include bagpipes. Therefore, understanding bagpipe music helps contribute to knowledge of Scottish music generally.

\textbf{The Core Elements of a solo piping competition}

In diagram 1 on page 6, the core elements of a solo piping competition are represented, demonstrating the underlying conceptual scheme in this study. The sound aesthetics, piper's aesthetics and the modal complex together merge in performance - shown in the centre of the diagram. A performance as represented in the diagram has a relationship with other performances that effectively constitutes the process of tradition, outlined in Chapter 4. This model of a piping competition is a relatively static one. Change within the modal complex (block 3) is slower than change in the sound aesthetics (block 1) and piper's aesthetics (block 2). This is because the

\textsuperscript{2} I have tried to quantify the numbers involved in piping, but unfortunately the Royal Scottish Pipe Band Association (RSPBA) have been unable to help.
characteristics of the repertoire are tightly controlled by a conservatism explored in Chapter 4. These variable rates of change are represented by the arrow on the right of the diagram which only refers to the blocks. Feedback from the audience and judges to the piper is shown by the arrows on the left of the diagram.
Other Performances

Piping Competition Performance

Feedback to performer

Diagram 1.

1 Sound aesthetics
- Pitch
- Timbre
- Intonation
- Individual identity

2 Piper’s Aesthetics
- Reputation
- Experience
- Melodic aesthetics: phrasing, heaviness and identity
- Repertoire selection
- Competition hierarchy
- Teaching lineage

3 Modal Complex (least change)
- Pitch set/hierarchy
- Emotional Effect
- Phrasing structure
- Structural tones
- Double tonic
- Motifs
- Rhythm contour motifs

Increasing change through time
Rationale for Research

This project arose out of my own need to understand more about the musical tradition in which I live. Since I began the pipes, I have been asking questions that had not been answered by my teachers. I have been asked questions about the bagpipes which I could not adequately answer such as: why do the pipes sound out of tune? (when they sounded lovely to me) or why does that sound like a really ‘pipey’ tune? (and it did, and I did not know why). Rather than my dismissing these questions, they led to more questions about my own instrument and the people who play, compose and teach the bagpipes. Why can a tune sound specifically like a bagpipe tune even when played on other instruments? Why do the pipes sound richly and sonorously in tune to me but grating to the ears of some others? What value-judgements do pipers make about the merits of tunes? On what knowledge and experience are those judgements based? What is the musical organisation of pipe music that can lead people to identify it as such?

To understand these questions I realised that I would have to explore not only the music of the pipes but also the human experience inextricably linked with the musical tradition. I felt that I was well placed to do this, having completed an undergraduate degree in Scottish music whilst also continuing to compete as a solo piper in the traditional style. I have several strands of musical experience that complement each other and have been
brought to bear in this study: I have played and continue to play in pipe bands, solo piping competitions, and with many other non-piper musicians. For three years I was a member of the group Back of the Moon with whom I recorded two albums. I have also recorded with other performers on their respective albums and live concerts. Therefore, I am well placed to research questions that I and others have posed about the bagpipe tradition.

This study is about music in culture, or ‘humanly organised sound’ because pipers choose to play tunes composed specifically by pipers for the pipes, and to play these in a particular style arrived at through their experience of the tradition. Tradition itself is a problematic concept, and has been discussed without agreement within the realms of music and folklore, see for example Glassie (1995), Barry MacDonald (1996), Ben-Amos (1984) and Gailey (1989). Barry MacDonald puts forward the view that culture is separate from tradition, and that culture encompasses materials such as tunes, songs and stories. He proposes that the best way to think of tradition is not as a noun or adjective; more descriptive “is the verb ‘to tradition’” (1996:118). The theoretical exploration of tradition as a process is used in Chapter 4 to explore the contextual issues raised in fieldwork.

The piping community is very tightly controlled by competition and only a small number of players progress to the highest levels of its hierarchy. This is precisely why I chose to examine performance from an individual’s perspective using in-depth discussions with a small group of pipers. In
Chapter 5, I combine the modal concepts of Chapter 3 and the contextual issues explored in Chapter 4 to explore the ‘traditionality’ of bagpipe music. I suggest that the study of the modal complex can be used to take a ‘measure’ of traditionality of tunes, here using my own compositions relative to the modal complex of the genre; in this case the 2/4 march.

My own experience as a piper has been woven into this thesis, as I believe that no study can be entirely objective. I have sought to make clear my own opinions and input throughout. My personal positioning within/without piping is discussed further, below.

Scope of research

This study is limited to several areas, in order that subject area and methods are manageable without being so small that the conclusions are rendered irrelevant. To this end, I have imposed several limitations on the field of inquiry. The first limitation of this study is that it focuses on competition pipe marches. There are two reasons for this focus: firstly, the inclusion of ceòl mór (see glossary, Appendix 3) is too large a study area, and secondly, ceòl beag repertoire is shared with other Scottish instrumental music, so that illuminating this area of the repertoire may in turn be useful to non-pipers.

This study is largely a synchronic snapshot of piping: essential historical issues such as change in pitch, do arise and are dealt with through
discussions, but the main focus of the thesis is present day performance-practice. This allows me to fully explore the performance of my contemporary pipers, not only providing a detailed analysis of performance, but providing material for comparative study of how traditional musicians think about music. It is an accepted premise of anthropology:

There is also a clear methodological advantage involved in the synchronic study of social life. Anthropology may be described as the process whereby one wades into a river and explores it as it flows by, whereas historians are forced to study the dry riverbed. One cannot engage in participant observation of the past.

(Eriksen 1995:33)

This is not intended to demean historical study; there are many fascinating diachronic issues, particularly in relation to bagpipe intonation, individual style and aesthetics, with considerable scope for further research.

I am primarily considering solo competition piping in this study. From my own perspective, I find that this performance context provides the greatest challenge, and that challenge is to perform by yourself, producing the best performance, technically and musically.

**Competition**

The system of bagpipe competitions in Scotland has its roots in social elitism of the late 18th century and the intellectual tenets of the Enlightenment, where epistemological knowledge was coveted above the musical and
sensory being. Much value has been attached to precise, informed, notationally-correct performance, to the detriment (some would argue) of free musical expression. Whether or not one considers that the competition system is too prescriptive, competition is the context for the vast majority of solo piping performance and has had a profound effect on performance-practice.

In choosing the pipers for this study, I decided to speak with players who are recognised as outstanding by their peer group of solo pipers. They have all achieved an international reputation as world-class players through successful competing careers and have won many competitions. Selecting these pipers enables me to explore advanced performance issues, that may not arise with lesser players. There is also an inherent paradox; those pipers whom their peers deem to be masters, are the players who have taken the prescribed melodies and in some way stamped their own interpretation on them within the confines of the competition tradition. That is to say, they are simultaneously conformists and innovators. They conform to the rules of competition whilst also innovating and interpreting within those narrow boundaries. This issue is explored through an analysis of phrasing and pointing in Chapter 4. The close analysis that in-depth discussions can bring results in original conclusions that are relevant to this specific music-culture,
which is after all the goal of an anthropology of music, particularly when it is the native culture of the researcher.³

Research Aims

The overriding aim of this research is to analyse the constituent parts of a bagpipe performance, and how they relate to each other, through the use of culturally relevant methods. Diagram 1 shows the performance concepts that constitute a competitive performance, and the research in this study focuses on their significance and function. These performance-related concepts include the sound as identity, competition as function, phrasing and pointing and the individual interpretation, repertoire selection, heaviness of tunes, band and solo styles and the judging of piping, all of which are explored in discussions with players.

One of the key aspects of performance is the sound of the pipe, and Chapter 2 explores through fieldwork, the approach that pipers take to achieving their ideal sound. I will show that pipers are more concerned with relative pitch than absolute pitch; relative to each other and the intervals of their chanters. Furthermore, pipers tend not to separate issues of timbre, intonation and pitch, they consider everything as one package, whilst at the same time understanding these terms. The unique sound that an individual piper produces is part of his or her identity, and Chapter 2 will show the very

high value we place on an individual and reliable sound. Again, this area is explored from a performance-led position drawing on and defining the terminology that pipers use themselves.

The most conceptually unambiguous aim of this study is to understand the modal complex of current competition bagpipe light music and how pipers realise it in performance. The use of the phrase ‘modal complex’ encompasses a cluster of concepts such as motifs, pitch sets, pitch hierarchies, patterns of range, structural tones, the role of the drones in the double tonic and rhythm contour motifs. Chapter 3 focuses on the modal complex and the key concept in it is the melodic motif, which forms a fundamental characterising part of bagpipe music. Also explored in Chapter 3 is the relationship of the drones to the modal organisation of bagpipe music, in particular the double tonic.

Core research questions arising from aims

- What are the main musical and extra-musical abstract performance concepts of competing solo pipers, and how are they realised in individual performance?

- What are the underlying modal concepts in the present-day canonical repertoire of the Scottish bagpipes and how do pipers themselves understand these concepts?

- What are the aesthetics of sound for world-class pipers and why?
• What is the relationship of the drones to the sound and music of the pipes?

Methodology

"...it has always been agreed that one cannot effectively learn to perform, be it singing or playing, from a book, or from musical notation, given that 'the text carries no more than the minimal necessary information for a new performance. It is not the composition itself'...making each interpretation unique. Rather, the history of performance shows multi-generational chains of apprenticeship and pedagogy, for instance in religious orders, or in traditions linked to repertory and instrument." (Dunsby 2003)

This statement has particular significance in the piping tradition. Each interpretation is unique and has multifaceted and interacting factors that effect the performer. That is the basis for this study: factors affecting a competition performance of ceòl beag can be put under the spotlight and analysed. The theoretical basis for this study is therefore multi-disciplined, borrowing methodological and conceptual strands of ethnomusicology, folklore, anthropology, oral formulaic theory and musicology. This multi-faceted approach is necessary to answer the central question of this thesis: what is it that makes a competitive bagpipe performance? and why?

Methodologically, there are two strands to this study. The first strand involved discussions with the pipers about what concepts are important to them and their thoughts specifically on ceòl beag and how to play it. This
discussion methodology is outlined below. Out of these discussions arose the second major method of this thesis: analysis of the repertoire of competition 2/4 pipe marches. This modal analysis relies on the discussions, particularly in relation to the concept of a canon of competition tunes; providing the repertoire for analysis, and also with reference to some modal traits. Consequently, the two methods are interlinked, with the tune analysis based upon the conceptual discussions with pipers. This analytical methodology is explained in the introduction to Chapter 3. These two methods combined with my own reflections upon performance bring a balance between desk work and fieldwork. I will now briefly outline my approach to the discussion methodology.

Discussion Methodology:

1. Etic – emic issues

Throughout this thesis I used the term discussion over interview when referring to the recorded fieldwork conversations. This highlights several concepts. Primarily, during the discussions there was an exchange of information (a conversation) between me and the pipers I worked with. I was not just asking questions of them, but having a conversation. This allowed me to talk around issues with other pipers and make my own contribution to this study. The other participants were interested in my opinions as well as
their own, although I do not believe that my opinions altered their own beliefs. I was occasionally corrected in discussion and tried to maintain an open mind throughout.

The use of the term ‘discussion’ also places me at the centre of the thesis as an insider. It would have been entirely false to suggest that I could be an objective researcher asking questions of informants. The tacit knowledge and status that is gained as a performer is very useful in research. This makes the voicing used in the thesis crucial to the readers’ understanding. I have used the pronouns ‘I’ and ‘we’ throughout this study, thereby including myself in the study. The reader should understand that the use of the word ‘I’ or ‘we’ deliberately signals the elements of reflexive research. In one sense, this process of dialogue, enabled me to be another ‘discussion piper’.

Often in anthropological or ethnomusicological literature, the issues surrounding reflexivity are those of outsiders researching the other. As a consequence, many anthropologists and ethnomusicologists have taken a relativist’s stance, valuing different cultures as unique, and reflecting this position in their writing. Within this study I am concerned with inter-cultural relativism (not cross-cultural) in that I am fairly junior to the discussion pipers. The discussion pipers are from the same sub-culture group as I, all pipers, however they are at the top of the competitive tree, with many more years of experience. However, I hold a privileged position as an insider.
competitor as well which affects my research relationship with them. This is a similar relationship between researcher and researched as Edward K. Miller (1981) experienced with Scottish folksingers, in particular Janet Weatherston, in his Ph.D thesis (Stoeltje 1999:172). He and I are privileged because of our own identities as performers within those researched.

This experience of being at once, within and without the tradition of piping could easily be labelled a dichotomy. How can someone be fully part of a musical world and at the same time a 'detached observer'? I concluded that my own position is not a dichotomy, but, in fact a period of growth through the adoption of different roles and identities. The constant playing, discussion, reading and reflection have actually enriched my life, leading to new understandings and an enhanced knowledge of my own music-culture.

In using the phrase - 'my own music-culture' - I am referencing Scottish competition piping. Nowadays, this does not necessarily mean that one has to be Scottish to understand the 'Scottishness' of the music. There are many pipers who have been raised in Canada and New Zealand who play Scottish competition pipe music, and it is no less 'Scottish' for their particular geographical location. Although piping is interlinked with other traditional musics, I argue that almost all pipers maintain a distance from other

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4 At the time of writing the author is the current President of the Competing Pipers Association, elected in October 2004. See further discussion of the role of this organisation in the hierarchy of pipers in Chapter 4.
traditional music through the influence of competition. In fact pipers, including those who are by birth Scottish, experience other Scottish traditions mainly through recordings. Moreover, that geographical location does not effect the ‘Scottishness’ of one’s performance is proven year-on-year by the large number of successful prize winners at solo piping competitions who are foreigners. What is at issue here is only the ‘Scottishness’ that resides in the music people play; who would argue that Bruce Gandy, Murray Henderson, Jack Lee, Greg Wilson, et al sound in some way ethnically different in performance than Scottish-born pipers? There is some disagreement upon this issue in the piping world; some still claim that to be a piper one has to be Scottish. I strongly disagree with this viewpoint, believing that piping like any musical skill is a learnt one. The prize lists, my listening experience and teaching worldwide support this view. There are of course differences between the competition piping cultures in different countries, as Colin MacLellan points out (see p.43) however the crucial issue in this thesis is performance.

During 2002 I attempted to structure the thesis through in-depth case studies with the individual pipers concerned. However, after several of the discussions had taken place I realised that the conceptual agreement arising within them was leading me to organise the study in a conceptual manner. For example, concepts such as timbre, intonation, pitch, phrasing, band and
solo tunes, competition, and heavy and light tunes and their meaning, were broadly speaking agreed as important areas.

Pipers did not have to play the tunes or source them for me in discussions, as I already knew them, or was at least familiar with them from my own listening and playing experience. One result of this is that we could discuss concepts in broad terms, mentioning specific tunes where relevant. I believe that we were able to cover a lot of conceptual ground during the discussions. If an outsider had been conducting the research, there would have been many more musical examples elicited from pipers and perhaps, the discussions could not have ranged so widely and freely. Therefore, I believe in this sense I was at an advantage over the outsider-researcher. Furthermore, I feel comfortable now having worked as a researcher in my own community, and feel prepared to venture further afield because I have gone through this process. Beverly J. Stoeltje (1999:160) went through an identical process researching West Texas cowboy culture. She is an advocate of researchers as insiders, feeling that it helps to identify similar processes in other cultures, and therefore reduce their inherent otherness:

"By looking at one's home culture through the lens of fieldwork, one has in a sense objectified the self and is less apt to objectify the "other" with the techniques of the ethnographic exotic, oblivious to social processes that characterize one's own culture." (1999:161)
But, being an insider also has drawbacks. I may have not asked questions which a less 'entangled' ethnomusicological enquirer might have. Certainly I constantly refined my research area to more reflect the priorities of the discussion pipers, who regard the sound and repertoire considerations as crucial. One major danger of insider research is that it occasionally produces conclusions only relevant to the insider's specialist field. The resultant study of the insider may be too emically based and therefore lack relevance for the wider academic or cultural communities. I have grounded this study on ethnomusicological theory and method, and hope that it does have some resonance outwith just the piping community. I anticipate that some of the melodic concepts and perhaps more of the modal complex will contribute in other areas of Scottish traditional music. In Chapter 5 I explore this further, offering further suggestions for research based upon the motivic analysis of the tunes.

The greatest challenge of being an insider in the researched community is to analyse the familiar. Having been brought up in this music-culture and participating within it my entire life, the difficulty for me has arisen in being 'blind' to the underlying context of competition piping. For example, I experienced a problem when it came to taking notes about my fieldwork. I did not take notes on how competitions were run, because I was always there; I did not feel it necessary to explore the sources and methods pipers use to locate and learn tunes; I have not focussed upon how discussion pipers
physically create their individual sound (Chapter 2 focuses upon their aesthetics of sound), because I understood this knowledge prior to doing the research. Instead I focussed this research on trying to discover the grammar of the music we play, the aesthetics of sound for individuals and the conceptual issues pipers bring to bear on performance, such as heaviness, competition, band and solo tunes. Because I am so intimately involved with competing pipers, I took for granted the system within which I am working, and had to be prompted to write the orientation to pipes and Highland games (see below), albeit I knew from the start that the concept of competition would be an area of research. It is this that to me lies at the heart of the insider research: the insider is in danger of ignoring the ethnographic context of the issues explored, because he or she is more interested in why than the how of performance. However, having stated my bias, what effect does it have on the results? Initially I felt that there was a danger involved in being immersed in the research but as time passed, I changed my mind. The idea of a danger in insider research reinforces notions of objectivity on behalf of the researcher, the fear that they are missing some vital viewpoint. The fact that I may be blind to particular and possibly important research aspects because of the very fact I am inside, now seems to me based on the false premise of objectivity. By being an insider I have I believe focussed this thesis upon the performance issues that are most important to pipers.
The question of advantage or disadvantage of insider or outsider status has become tangential to me; more significantly my status has allowed me a fast track to the conceptual issues that really engage pipers. The issues presented here and the organisation of the thesis, with Chapter 2 entirely devoted to sound, reflects the issues imperative to pipers. No researcher can really present all the certainties about a community: "Ethnographic truths are...inherently partial-committed and incomplete.... Power and history work through them [ethnographic texts], in ways their authors cannot fully control." (Clifford in Clifford and Marcus 1986:7). For me, this is abundantly clear: by focussing on the issues central to pipers, I have ignored other areas, or deeper deconstruction of our values. I can accept this in return for knowing that what is presented is partial but representative of pipers. Indeed, can any study not be partial by the very nature of research? Therefore understanding the boundaries of research becomes crucial to its value, to both the scholarly and performing communities. As my fieldwork developed, I realised that I was engaged in a process of crystallising the research goals through the discussions. Refining the direction and focus of the Chapters became an additional aim of the discussions.

2. Introduction to the discussion pipers

The choice of pipers for this research was dictated by my approach. I decided early on that I would focus on detailed discussions with only a
handful of pipers. This facilitated depth of subject matter in the discussions and a good relationship with discussion pipers. Two of the pipers, Roddy MacLeod and Chris Armstrong, work at The National Piping Centre in Glasgow, where I worked as an instructor between 2000 and 2002. This in my opinion, has no bearing on the discussion of the topics presented within this thesis. Although there are links to this institution through the discussion pipers and myself; the solo competing careers, and the ideas of all the discussion pipers are very personal to themselves; there is no question of there being a 'Piping Centre' bias to the discussions. This is because all the instructors (including myself) have had diverse musical training in various schools of tradition, their ideas about music are in no way shaped by their status as teachers under the same roof. Furthermore, all the concepts discussed in this thesis are issues that I have discussed with many more pipers at competitions than are included here. This confirms in my mind that most Highland pipers are interested in these issues and that they are not specific only to the discussion pipers. I will now briefly outline each of the discussion pipers whose thoughts are the basis for this thesis.

Roddy MacLeod is a world-class solo piper and Pipe Major of the Scottish Power Pipe Band, one of the leading pipe bands in the world. He is also the Principal of the National Piping Centre, and as such was my manager from 2001/02 while I worked there as a piping instructor. He is an excellent player of both ceòl mór and ceòl beag and was taught mainly by the late
Duncan Johnstone of Glasgow. He was brought up in Glasgow, with Hebridean ancestry. His prizes are numerous, including wins at the prestigious Glenfiddich championship in 1992, 1997 and 2002. He was awarded the MBE in 2003 for services to piping in the Queen’s Birthday Honours list.

Willie McCallum, another leading solo piper, is of the helpful opinion that research is good for piping. Willie, one of the most successful solo pipers, is known for being an outstanding player of both ceòl mór and ceòl beag. He is from the famous McCallum piping family of Kintyre and as such is steeped in their tradition and musical style. He was taught within the family, by his uncle Ronnie McCallum and his second cousin P/M Ronnie McCallum, who was piper to the Duke of Argyll and a double Gold Medallist. He also has had tuition and help from his other uncle, Hugh MacCallum. Willie’s father - Willie senior, is a tireless promoter of bagpipe music. The family has traditionally been based on the Kintyre peninsula, in Campbeltown, although Willie now lives in Bearsden, Glasgow. The McCallum family has a direct genealogical link to John McAllister, the winner of the Prize Pipe at the second Falkirk Tryst competition in 1782; so piping has been in the blood for many generations. Willie has won the Glenfiddich piping championships a record six times and is a past President of the

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5 There are two different spellings of the surname within the extended family.
Competing Pipers Association. He is an accountant at Strathclyde University in Glasgow.

Chris Armstrong is a younger player who has risen speedily through the ranks of competition pipers to the top echelon. He was born in 1980 and has devoted his life to piping. He was brought up in Bathgate and now lives in Airth. Chris works full-time as a bagpipe instructor at the National Piping Centre, Glasgow. Highlights of his piping career to date include winning the Former Winner’s March, Strathspey and Reel at Oban (2002) and the Gold Medal for Piobaireachd at Inverness (2003). He was originally taught by Pipe Major John Matheson BEM, and now receives tuition from Andrew Wright. He is also a recording artist and composer who has recently released his third solo album, mainly featuring his own compositions. Chris positively contributes to this study with both performance and compositional skills.

Greg Wilson is one of New Zealand’s best pipers. He is a Major in the New Zealand army, but spent three years living and working in Scotland. He has numerous awards and is well respected by the piping community. Greg began piping at the age of nine in Dunedin, and was initially taught by

6 Throughout this study I will refer to ‘Oban and Inverness’ as pipers do, meaning specifically the two most prestigious and international competitions of the year for solo pipers. ‘Oban’ is the Argyllshire Gathering held in Oban in late August and ‘Inverness’ refers to The Northern Meeting, usually around the 8th or 9th of September. Both competitions run over two days and include the coveted Gold Medal piobaireachd competitions.
Airdrie Stewart. He has continued in the Balmoral style of ceòl mór with tuition from Donald Bain and Murray Henderson. He was the fifth New Zealander to win the Gold Medal for piobaireachd in 1990 (Inverness). He now lives in New Zealand and has begun making bagpipe reeds in addition to his military career.

Colin MacLellan is a famous Scottish piper who has spent many years in Canada and has now returned to live and teach in Edinburgh. He is the son of the late P/M John MacLellan, a former Director of Army bagpipe music and credits his father with the bulk of his playing style, although he stressed that one should listen to many players and find a style that suits through experimentation. Colin moved to Canada when he was 18 and became a full-time reed maker, returning successfully to compete in Scotland, winning both Gold Medals and is also a past President of the Competing Pipers Association.

Angus MacColl, alongside all the other pipers in this study, is one of the best players in the world. He lives in Benderloch, near Oban and has worked most of his life in fish farming. He has recently given this up to devote all his time to teaching and playing bagpipes. Angus is now one of the most sought-after pipers and teachers and occasionally composes his own

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7 Style of Piobaireachd playing associated with the two 'Bobs of Balmoral' – Robert Brown and Robert Reid who were pipers and ghillies on the Balmoral estate in the North-East of Scotland.

8 Previous New Zealanders to win the Gold Medal were Donald Bain, John Hanning, Murray Henderson and Lewis Turrell.
tunes as well. This is perhaps unsurprising as he is the great-grand-nephew of the legendary composer John MacColl. His tuition came from Ronnie Lawrie and Ronald Morrison, as well as his father.

Brian Donaldson is a full-time bagpipe maker, living in Fife. He has won many of the top awards in piping, as well as completing a distinguished career in the British Army. Brian was taught by his father and P/M John D. Burgess amongst others. He has experience of top level performance in both bands, with Dysart and Dundonald pipe band, and in solo performance; competing at the highest level now for over twenty-five years. He is one of the few bagpipe makers today who still regard the making of bagpipes as a craft, having served a traditional apprenticeship with Jim Tweedie of Edinburgh as a young man.

An important aspect of the fieldwork for this study is my relationship to each of the pipers. I deliberately chose world-class performers for this study. Not only are their contributions of the highest calibre as they themselves are, but I myself have a great respect for each of them. It is important that I have this respect, as it means I trust their opinions on all the discussion areas. This gives a security and I believe validation to the discussions.
3. Method

a) Focus of Discussions

The discussions were semi-structured before they began. I had already focussed the topics through my pilot study discussions in the academic year 2000/01. Before I began the main body of this research I understood that the aesthetics of sound were central for pipers, so I made this my first area of investigation. Discussions focussed on pitch, timbre and intonation. I also used the first discussion with each piper as a good opportunity to record a brief playing history, often an excellent starting point to ask questions about their sound. During these initial discussions other topics of importance emerged, particularly the choices pipers make about repertoire, and this led into new areas of discussion for the second round of discussions. For the second round of discussions, I made a list of canonical 2/4 marches. I used this list as a basis for talking about specific tunes, and to elicit more specific melodic and social concepts surrounding the tunes. Furthermore I used this list of tunes to further refine itself, by including tunes that to me did not represent the solo canon, and that pipers identified as being too simple, or more suited to pipe bands. During discussions, other tunes that pipers felt should be included were added in to the list.

In further conversations we explored additional melodic and social conceptual issues and clarified points from the previous sessions. There were
other pipers with whom I conducted one-off discussions, and these are noted in the text, as well as in Appendix 5. I must point out that the ideas contained within this thesis have been the subject of considerable reflection by myself as well. I have engaged in an internal 'discussion' with myself about all of the issues. Important also have been my informal chats with pipers, judges and audiences at many Highland games and indoor competitions.

b) The semi-structured discussion

Before each discussion, I prepared a list of topics and individual questions or areas for discussion. I used this list to focus the conversation, leading to full and frank discussions of each area. I found this method to be very helpful in focussing my research upon important areas and providing the primary source material for my thesis. Using a semi-structured plan allowed me to be flexible in discussions and to follow through on areas that emerged as significant. Often in discussions, pipers would reach for their practice chanters, or sing a tune to better demonstrate an idea. This has proved invaluable as music overcomes the lingo-centric predicament. I have edited some of these musical examples onto the CD that accompanies this study (where these occur is noted in the text and for track listings see Appendix 2).
I stressed at the outset of discussions with each player that they were confidential and that their words would remain their own. In order to retain this confidentiality and also truthfulness, after completing the thesis, I gave each piper the relevant sections in this thesis to allow them to review their words. This allowed a further opportunity for them to check that their words had not been misinterpreted, and that they still agreed with their discussion evidence. All the pipers did agree with what they had originally said and only some minor corrections to their individual biographies were undertaken. I feel that the confidentiality of these discussions was crucial to the honesty of the fieldwork, particularly when discussing events or issues that I am involved in as an insider.

During the academic years 2000-2002 I used a portable Digital Audio Cassette recorder for the discussions. In the summer of 2003 I purchased a Sony minidisc recorder and used this for all further discussions, almost all of which took place in The National Piping Centre, Glasgow.

**Tune Analysis: The Canon of Tunes**

Before I began fieldwork for this thesis, I conducted a pilot study in 2000/01. The results of this pilot study focussed my research on a narrower area and confirmed my belief that the melodic analysis, which is the basis for Chapter 3, could be book-based and informed by fieldwork discussions. This

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9 This stage began at the end of some re-drafting in September/October 2004.
is because pipers generally use settings of tunes from the master composers, and stick rigidly to them. I explore this issue and justify my use of printed settings of tunes rather than recorded performances in the 'performance and the book' section of Chapter 3.

Throughout the discussions for this thesis, it became clear that there is a body of competition tunes that are commonly played by pipers. These small number of tunes are frequently heard in competition, constituting a canon of competition repertoire. Musical canons are an important aspect of traditional music, and as Bohlman (1988) says; they reveal important relationships between text and context:

One of the most significant components of this dialectic [between text and context] is the folk music canon, those repertories and forms of musical behaviour constantly shaped by a community to express its cultural particularity and the characteristics that distinguish it as a social entity. Because the social basis of a community is continuously in flux, the folk music canon is always in the process of forming and of responding creatively to new texts and changing contexts....

As socially motivated choices, a community's canons bear witness to its values and provide a critical construct for understanding the ways the community sorts out its own musical activities and repertoires. (Bohlman 1988:104-5)
I researched a list of 64 marches that are regularly played, and took this as the basis for a canon of competition pipe marches. I began by compiling a list of marches I felt were very commonly heard at competitions. I then discussed this list, and the existence of various canons of competition tunes, with the discussion pipers. There was comprehensive agreement from the discussion pipers on the existence and content of these canons. As research progressed I withdrew some tunes, particularly pipe band-style tunes, and added others, continually revising the list on a consensual basis (the canon and its attributes form the basis of Chapter 3). During the Former Winner’s March, Strathspey and Reel competition at The Argyllshire Gathering, Oban (2003) all of the audience members were given a list of submitted tunes for the competitors. These competitors represent the cream of solo piping, so I then revised my list and included some tunes submitted for this competition. Accordingly, the table of the canon of marches presented in Chapter 3 is representative of contemporary competition piping. Furthermore, all the tunes are given in their original published format in Appendix 4.

This canon is essentially a consensual list of tunes deemed aesthetically suitable for solo competition. The only reference I have found in print to this was an article that appeared in the Piping Times vol.48, no.9 (June 1996) written by William Gilmour:

Over the years the list of accepted competition 2/4 marches has remained surprisingly short. The late John Garroway reckoned
that it was very unlikely that any further new ones would ever be composed.

The 25 most popular marches probably account for 80% of all the tunes presented and played in competition. The editor says I have not to list these because most pipers would have a very similar idea of that list. It would include tunes composed by Angus MacKay, Hugh MacKay, John MacColl, William Lawrie and William Ferguson etc as well as some "one offs" like Honeyman's Lord Alexander Kennedy and MacKinnon's The 74th's Farewell to Edinburgh. The next most popular 25 would probably represent a further 15% of tunes presented and the 5% remaining would be rather less well known and would be represented by probably another 50 tunes.

These numbers are approximate but make for easy counting. All of these 100 or so tunes would be recognisable to us as 2/4 competition marches. Why is this? What are the common features?

Obviously a good melody with a strong beat is essential. It must have at least four parts. There has to be a degree of difficulty, either through lots of embellishments (some might say a mandatory over abundance) or because of its construction. Also, as far as I have been reliably informed, it must not finish on D. I believe however, that there is a further requirement, not necessarily following on from it being difficult to play, and that is that it should fit most comfortably or sound best at a rate of between 70 and 90 beats per minute. This would explain why tunes like the 79th's Farewell to Gibraltar are not competition 2/4's, since in other respects they would fit the requirements of difficulty etc.

Almost all of our 100 competition marches obey this "definition" but there is the odd exception. Mrs MacDonald of Dunach has a strong D flavour and ends on D. Furthermore the third measure is partly syncopated which is quite abnormal and therefore on two counts it should fail. Nevertheless it has been played many times and has now won many prizes. Another D-ending tune, not played so often is Lady Lever Park, but it in all other respects fits the definition with a good melody and tempo.

There is another 2/4 march however, which is difficult, has four measures and finishes on a D but to my knowledge has not been submitted (or accepted) as a competition march. I refer to Colonel H. H. Burney's Farewell to the Gordon Highlanders. This tune has a strong melody, requires an expert technician to bring out its undoubted swing and style, and has an extremely innovative
fourth measure. Not surprising really, since it was fashioned by one of the acknowledged master composers, G.S. MacLennan. It has also the virtue of having been around for a long time, like most of the classic 2/4s.

In all forms of pipe music I am, what can best be described as a traditionalist. If it was good enough for Patrick Og, Angus MacKay and Willie Ross, then it is more than good enough for me and I would not like to relax these rules for the 2/4 competition march established over the last 150 years to permit inferior tunes to enter the lists.

I have no quarrel with Mrs MacDonald being allowed to break these rules, because it is a marvellous tune.

Then again, so is Col. Burney. (Gilmour 1996)

Tunes and Notation

In this thesis, I will at all times refer to notes (a single tone) at the pitch they are written at in bagpipe music because pipers do themselves, and it follows that my discussion of modes will use the same pitch indications. The bagpipe scale will be represented thus:

Bagpipe Chanter scale

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G A B C D E F hG hA
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Throughout this study, individual phrases are in lower case, e.g. phrase a, phrase b etc. However, the bagpipe is essentially a transposing instrument and sounds at a different pitch than written (see Cannon (1987:28) for further
elucidation of this point). Throughout this thesis I will show musical examples without a key signature as pipe music historically developed in this way. Furthermore, the key signature is inappropriate as it implies intonational characteristics and pitch relationships that are foreign to bagpipe music. If the reader wishes to play any of the musical examples on another instrument other than the bagpipes, they should assume all musical examples should be read with two sharps (F and C) as though in the key signature of D major (or as in A major with a flattened seventh).

Analysis of this canon involves examining the tunes as they exist in notation, as well as playing and composing. In my opinion, the most important feature of the modal complex are melodic motifs. To me, these motifs contain the essence of what characterises pipe music. Throughout this study I came to see mode as a broader concept than first imagined and in some ways similar to the tune family concept; however I conclude in Chapter 3 that the tune family concept is primarily suited to traditions with freedom to invent in performance.

In order that the melodic analysis cohere with competitive modern-day practice I decided to lead this thesis from the pipers' viewpoint, analysing the tunes that arose directly from the discussions. The method for motivic identification and analysis I arrived at involves the examination of canonical tunes. From experience, whilst playing these tunes, I have found many
formulae which particularly impress me as sounding traditional, and have identified these in other tunes.

I believe that melodic motifs offer a guide to pipers as to which tunes sound traditional. That is to say, pipers make value-judgements about the compositional style of tunes, based upon the nature of its motifs (amongst other factors). These melodic motifs do not necessarily have to be note-for-note motifs. Indeed my analysis distinguishes between melodic motifs and what I have termed ‘rhythm-contour motifs’. I observed that many of the melodic motifs are reproduced exactly but at another pitch. Therefore I introduce the concept of a motif with a specific rhythm and contour, but that can be used at various pitches. I believe that these rhythm contour motifs exist across many bagpipe tune genres, and are one of the characteristics of the music. Specific musical motifs such as these:

![Rhythm contour motif](image)

or

may both be represented by this rhythm contour motif:

![Rhythm contour motif](image)

In this rhythm contour motif, the contour rises from the tonic note (1) through an intermediate pitch to the fifth and descends again through an
indeterminate pitch. The specific rhythm is also shown and Chapter 3 will demonstrate that the rhythm is unchanged despite the changes in pitch. Consequently, rhythm-contour motifs associated with specific modes are useful for analysing the character of traditional music, across key signatures and genres. I believe that through establishing the modal complex and its characteristic rhythm-contour motifs, we may be able to understand the 'Scottishness' of Scottish music across instrumental and vocal boundaries.

Mode

"If one thinks of scale and tune as representing the poles of a continuum of melodic predetermination, then most of the area between can be designated one way or another as being in the domain of mode...it is more than merely a scale." (Powers 1980:776)

Powers' statement here is crucial to Chapter 3 of this thesis. Early mode scholars in Britain tended to think of mode as representing 'merely a scale'. The use of the word mode needs to be defined in relation to this study. This is a confused area because the word has had various meanings, both historically and regionally. In European art music the term has been mostly used for classification and the description of tonal structure. In relation to my study, the term has more resonance with the "modern musicological concept applied to non-Western music" (Powers, 1980:776).
For the purposes of this study the term mode implies the inherent musical properties of a piece of music that include melodic motifs, a pitch set, a pitch hierarchy, structural tones, and that results in an overall emotional effect. Furthermore, the use of the word mode implies certain melodic motifs that belong to that particular mode, and it is the analysis of these motifs and their structural significance that are a key aim of this study.

Mode does not imply either a scale-type or a tune; the term occupies the ground in-between. Previous scholarship and mode as it applies to this thesis is explored fully in Chapter 3. At the turn of the twentieth century, British folksong scholarship tended to view mode as being a defined group of notes constituting a particular scale, which could be found in traditional music. However, gradually the concept of mode has grown to include not just scales; in ethnomusicological literature, mode now encompasses a hierarchy of pitches, melodic motifs, emotional effect and ornamental pitches amongst others. Within British traditional music scholarship, the concept of mode has been more commonly applied to song than instrumental music. Indeed the canon of scholarship of mode as applied to Scottish traditional instrumental music is almost nonexistent, but there has been a valuable study in the latter half of the twentieth century. 10 The majority of scholarship in bagpipe music has concentrated on social history and notational structure,

10 See the work on piping modality by Buisman (1995).
from the ‘armchair’; very little has been directed towards performance concepts such as sound aesthetics, pointing, phrasing or heaviness for example.

The drone of the bagpipe is central to this study, in particular its effect on intonation and tune construction. The strong agreement with the drone tonic has led to many tunes being composed in A modes. The drone provides varying relaxation and tension and distinct patterns can be found in the structures of pipe music. Similar patterns can be seen in other worldwide traditions where tension and relaxation against a tonic has greatly affected the resulting structures. One such feature of Scottish music is the double-tonic, in which a phrase is played and then repeated with the tonal centre shifting up or down. This is particularly prevalent in pipe marches and I explore it in Chapter 3. The double tonic is an attractive feature in pipe music and one of the most popular modes in the canon of marches is the A/G mode which is a double tonic arrangement, with the two tonal centres A and G juxtaposed against each other.

The ethnography of a bagpipe competition

This thesis focuses upon the music and associated concepts of bagpipe competitions and in this first Chapter I will outline some of the ethnography
of that situation. This section discusses the context that underpins performance of competition music, and is therefore more descriptive than analytical.

Solo piping competitions take place indoors and out. Generally indoor competitions are the more prestigious events; all the invitational competitions\textsuperscript{11} take place indoors and by and large, the numerous Highland games competitions comprise the outdoor contests. Pipers often speak about 'going round the games', meaning travelling around Scotland during the summer months competing in Highland games. Although described as 'Highland games', these outdoor contests take place all over Central and Northern Scotland; from Halkirk to Bathgate. There is very little difference to the music between indoor and outdoor competitions, although perhaps pipers sometimes take weather conditions into account when selecting tunes to enter for competition, possibly submitting shorter piobaireachds in inclement weather.

Some indoor events specify a repertoire; such as the Donald MacLeod memorial competition (held at Stornoway, Isle of Lewis in March every year), the pipers for this event are invited, picked from the current prize-winners at other major competitions. Each submits a selection of ceòl mòr and ceòl beag

\textsuperscript{11} For example, invitational competitions include the Glenfiddich championships, The Silver Chanter competition in Skye, the Springbank invitational in Campbeltown, The G.S. MacLennan invitational in San Diego and the Donald MacLeod Memorial competition, amongst others.
composed by the late P/M Donald MacLeod. This often stimulates the players into learning new tunes, and they enjoy this process as it opens their eyes to some good tunes composed (in piping terms) fairly recently, in the last 50 or 60 years:

Angus MacColl: A thing that opened my eyes, to other tunes that are out there, you know, when you’re younger, I never bothered with composers, or who wrote anything, just played the tune you know, but the Donald MacLeod competition, it opened my eyes to the stuff that guy’s written, unbelievable. I’ve come across a lot of good strathspeys and reels that were there in the books, that I didn’t pay any heed to. And till I had to learn them, you know you had to get three of each for the competition. Everybody puts in Susan MacLeod just about, and then you start looking at others. Stac Polly, Firth of Lorn and Cat Lodge and them, you know they’re great tunes. (Angus MacColl: discussions 15/02/2002)

There are several other competitions that specify piobaireachd repertoire but, apart from the Donald MacLeod memorial competition, I know of no other that specifies ceòl beag repertoire. Normally pipers submit repertoire from an unwritten canonical list of competition tunes, discussed in Chapters 3 and 4. Some of these other repertoire-specific competitions are:

- The Donald MacDonald Piobaireachd competition, where competitors are asked to submit two tunes from his piobaireachd collection (1822), and perform them in an historically authentic manner.
The piobaireachd competitions at the Argyllshire Gathering and the Northern Meeting. (The Silver and Gold Medals, the Clasp (Inverness) and Senior piobaireachd (Oban) competitions. The list of tunes are set each year on the recommendation of the Piobaireachd Society.

The Iain Dall MacKay Memorial Competition in September, held in Sutherland. Competitors are restricted to MacKay tunes.

The Dunvegan Medal and clasp competitions at the Skye Gathering in Portree every August. Competitors are restricted to MacCrimmon-composed piobaireachds.

These competitions and various others stimulate the top players to learn new or unfamiliar melodies, or to perform pieces in a completely different manner. This is generally a good thing for piping and is widening the canonical repertoire of competition tunes (generally ceòl mór). For example, more of Donald MacLeod's compositions are heard at competitions than any other recent composer.

The vast majority of competitions ask pipers to submit standard ceòl mór and ceòl beag. Going round the games it is normal for judges to ask for three piobaireachds and select one of them for you to play. Likewise with ceòl beag, usually pipers submit three and play one. For more formal

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12 See glossary, Appendix 3 regarding the definition of 'Senior competitions'.
competitions such as the Argyllshire Gathering (Oban) and the Northern Meeting (Inverness), pipers have to submit all their tune entries well beforehand. For these two competitions, the application for eligibility must be with the committee by the end of January. If you are allowed to play, the tune submission closes at the end of May and the competitions take place at the end of August and beginning of September respectively. An ordinary Highland games contest does not have a restricted entry, although many have closing dates for entry, due to the large numbers entering them. For example; in the summer of 2004, I played in the Blair Atholl Highland games competitions, there were a record 49 entered for the ceòl beag competition. This competition began at 10am and I was last on at around 4:30pm. This was an unusually large draw for a Highland games competition in Scotland.

Bagpipe competitions are now a global phenomenon taking place in Scotland, England, Ireland, Canada, New Zealand, Australia, South Africa, the United States of America, Sweden, Germany and France. Competition exists everywhere that the Highland bagpipe exists and is, by far, the largest performance context. Outwith Scotland, the largest numbers of pipers are concentrated in the diasporic regions of Canada. Many judges and competitors are performing internationally, but there are differences between cultures in the approach to competition. Colin MacLellan spent twenty-five years in Canada, competing, judging and reed-making, and highlighted some of the differences in approach to competition between Scotland and Canada:
SM: What about going to a competition in Canada, a solo piping competition, what's the, is there a different atmosphere, or culturally, is there differences between the way that people operate...is it the same?

CM: No it's totally different, totally different in that when you go to Canada...my knowledge is pretty restricted to North America versus Scotland, I don't have a lot of experience in other countries at all...Canada and the USA...but Canada does it, I mean it's a new country, it's just a different, invariably at Highland games is what we would call a pipe band competition, and there'd be solo competitions crammed in that start at 8 o'clock in the morning and it's.

SM: 8 o'clock in the morning?!

CM: Oh aye, first on in the piobaireachd 8 o'clock in the morning, and if you're not there ready to start, the steward comes and puts, (the pen) right through your name, that's it; scratched, oh aye, these things run with conveyor-belt-like efficiency.

SM: Is that right?

CM: Oh yeah, oh yeah, if your entry arrives an hour late, you will not get to play, if you're not, they have to do it this way. They have
to do it this way though, because, they’ll cram into a day, what would take us, an entire three-day weekend.

SM: Is that because people are travelling farther?

CM: Yeah, yeah, I mean, for instance, they have, this is what happens at Highland games in Canada: you’ll have five grades of amateur piobaireachd, five grades, that’s just the piobaireachd!...four grades of amateur and a professional competition, the professional competition’ll have thirty-three players in it!... you’ll have grade five marches, grade four A and B marches, you’ll have grade three A and B marches you’ll have grade two march and a strathspey and reel and a jig, in grade one; march and strathspey and reel and jig, and you’ll have a full slate of competitors in every competition with no less than a dozen in each, and all this will be over by lunchtime!

SM: Wow, that’s a lot of judges as well?

CM: Oh yeah, they’ll have an army of about 15 judges, and so it has to work like that, so if you’re not there for your turn, the steward just goes ‘sorry’. But on the other side of the coin, which is much better than Scotland, is that a week before the competition, you’ll get an envelope in the mail saying ‘Colin MacLellan you’re on number five in the piobaireachd you will play at 10:21’, and that is when you start playing! it’s 10:21. So you can make your travel arrangements, I mean I’ve turned up at games here [Scotland] at
ten o’clock in the morning and not played until five at night...there’s places I’ve gone the night before, when I didn’t need to go the night before, I could have gone in the morning and saved myself [money]...the organisation of Highland games in Scotland is horrendous, but, it’s a lot more, friendly, it’s more laid-back it’s a wee bit more, it’s less of a sporty culture type-of-thing, and you know in Canada, invariably it can be in a sports facility, and they’ve got wee judging stations with umbrellas...fire right along [the line of competitions] it’ll all be over in about ten minutes!

SM: Does it affect the music?

CM: Yeah I think so; it’s not an atmospheric thing, it’s a very routine thing, at the end of the day, the president of the piping society gets up in front of this massive great massed bands and he...stands and he goes, and he stands there for about twenty minutes goes, ‘1st in the amateur march blah blah, 2nd blah blah blah, 3rd blah blah, right now onto the grade 2, blah blah’ and it’s just...it’s just result after result and the whole thing lacks, eh, you know, eh, it’s easy to criticise, on the plus point they’ve got tons of players and tons of keenness, and it’s just a different way of doing things...they’re being very well taught...Of course what they don’t have, is they don’t have any teaching in schools, or very little teaching in schools, so all teaching is done on what you would call a voluntary basis. A lot of teaching is done with no money changing hands. (Colin MacLellan discussions: 25/05/04)
Canadian competitions are run with far greater efficiency than in Scotland, and as Colin pointed out, this affects the atmosphere. Another difference between Canadian and Scottish competitions is the distance between competitions. In Canada, the distances are often so large that competitors have to fly to events, whereas in Scotland one can drive to the competition in the morning. This means that in Canada there are fewer competitions where the top players play against each other. Furthermore, the majority of very good Canadian players still travel annually to Scotland to compete, as do New Zealanders, Americans and Australians. Interestingly, Scottish players generally do not travel to other countries to compete at their own expense, although there have been one or two in very recent years. This is possibly because the Scottish players feel that the most prestigious competitions are at home and therefore do not feel the need to travel. This has the effect of maintaining the position of the major Scottish events (Oban and Inverness in particular) as the most prestigious competitions anywhere in the world.

All solo pipers wear a kilt to compete and there is a dress code that has been developed since the earliest competitions. Nowadays, male pipers will generally wear a kilt, sporran, ‘ghillie’ brogues, hoes, flashes, tie and kilt jacket to compete in. Various further adornments such as a waist belt, watch–

13 See MacInnes (1989) for further details of historical origin of Highland dress in piping competitions.
chain, kilt pin, Glengarry or Balmoral-style hat etc. are dependant upon the individual's sartorial style. Many competitions stipulate that competitors must wear Highland dress or risk not being allowed to play (see rule 7 for the Argyllshire Gathering piping competitions in Chapter 4, p298). The situation for female pipers affords more individual leeway; usually with longer dresses and fewer jackets.

Chapter 4 discusses competition piping and its hierarchy, and this can be seen in the entry for competitions. There is a tendency amongst premier-grade pipers to play fewer Highland games. This is because in order to compete in the premier competitions, a budding competitor has to win other competitions in order to be eligible. I often hear pipers talking about their 'track record' of competitions; the results around the Highland games will enable a piper to perhaps play in the Silver Medal competitions at the Argyllshire Gathering and the Northern Meeting. Therefore, once a player has won more prestigious competitions, they will rise through the ranks and not need to win prizes at Highland games contests. Each individual Highland games has a reputation, and some outdoor games still attract the top level pipers. For example, Inverary games in July, Glenfinnan games and the Braemar Highland Gathering usually attract some of the best players from Scotland and abroad.
Once the players have arrived they have to register by a certain time with a piping steward, who checks all the entries, takes entry money and performs a random draw for order of play. The draw is usually done with scraps of paper pulled out of a Glengarry, with the total number of pipers each choosing a number, getting the day's piping started. As the pipes are a woodwind instrument and have four reeds, it is vital that they are warmed up before competition. Each player decides how long to spend blowing and practising before going on to compete, but it is usually between 10 to 30 minutes warm-up.

At Oban and Inverness, there is always a panel of three judges in each competition. At Highland games there are usually two judges, and occasionally one. It is not unusual for some judges to do a large amount of judging, for example Walter Drysdale a senior judge who retired at the end of 2004 and is close to 80 years of age, told me that he judged well over fifty separate competitions in 2003. As there is a small number of suitably qualified judges, it is common to be judged by the same man in various competitions throughout the year. This contributes to the sense of community in piping competitions, and means that younger players have the opportunity to be constructively criticised over the years, by judges who may become very familiar with their style, and watch them grow as musicians. It can also lead to controversy; I have heard of more than one case of leading players who refuse to play in a competition if a particular judge, whom they
feel may have treated them badly in the past, is judging. In a sense, the Highland games are a means of monitoring younger players and their progress. If a player does not conform to the norms of competition then their chance of gaining status and progressing up the competition hierarchy is nil. However musically restrictive this system sounds, I feel bound to point out its advantages as well as its elitist and exclusivist nature. The relationship of the judges to the competitors is one of seniority and usually goodwill. Some judges judge many games because they have a reputation for impartiality. This aids the feeling amongst competitors that there will be a fair result. There is not much interaction between the judges and competitors, as the judges are judging all day.

Most Highland games have a wooden platform either resting on the ground or raised up upon which everyone plays. The judges sit next to the wooden platform or often in an open tent and there is normally very little discussion between competitors and the judges. At the end of the day, after the prizes have been announced, usually by one of the judges or the steward; some judges will take the time to talk to the competitors and tell them their thoughts upon their performance. This can be very illuminating, particularly when the tune you have played might not have come across as you intended it to. I have found these comments from judges very helpful, and together with the prize list, they help to give a picture of one’s standard in relation to the other pipers. It is also interesting to have the thoughts of judges who
perhaps play in a different school than one's teacher, providing an opportunity to widen your knowledge of piping. There is little ceremony at outdoor competitions, the winners collecting their tickets and presenting them to the secretary of the games to collect prize money. At indoor and usually more prestigious competitions, there can be more ceremony, for example at Inverness there is a formal prize giving after all competitions are completed. Many of the pipers, judges and audience members fill the Eden Court auditorium and listen to the Secretary of the Northern Meeting give a short speech and run through the prizes. Those good enough to win prizes at the major events will probably find themselves moving higher up the performance hierarchy that competition demands.

The Highland games attract many tourists from abroad as well as the local crowd, but it is rare to see many people other than pipers themselves listening to the piping competition. In fact, the pipers and judges often prefer to have the piping boards away from the main arena of the games day, where the athletics and so forth are held. This allows for a bit more quiet, which pipers feel is needed in order to properly listen to each competitor. It is perhaps indicative of the esoteric nature of piping that audiences at any piping event are usually small, and mostly comprised of pipers themselves. This is indicative not just of the closed nature of piping competitions, but also of the wider issues relating to the image of the bagpipes in Scotland. These
issues are tangential to this study, but extremely interesting and important to the development of piping generally (see below).

There is a feeling amongst pipers and non-pipers interested in traditional music, that the inward-looking nature of piping competitions does not help widen its popular appeal. However, not only pipers are to blame for this. Often one can hear comments regarding the extremely poor coverage of major piping events and pipe band events, in Scotland by the media. Bagpipes are treated as a novelty news item, only to be covered when there is a lack of political or major stories. Consider for example, the selections from the following three stories from the online archives of The Scotsman newspaper, and the fact that it did not even cover the major solo piping competitions, at Oban, Inverness or The Glenfiddich in 2003:

Thu 11 Dec 2003

New blow to pipers

ANDREW DENHOLM SCOTTISH POLITICAL REPORTER

HELP could finally be at hand for those who find the skirl of the bagpipes more of an annoyance than a passionate evocation of Scotland’s proud history.

The Scottish Parliament is considering legislation which could lead to pipers having their instruments confiscated if they cause a public nuisance.

MSPs heard yesterday that pipers who practise throughout the day could be prosecuted under the Scottish Executive’s flagship Anti-Social Behaviour Bill, which was originally drawn up to tackle persistent young offenders.
The move follows concern from residents in the Highlands who have complained to the parliament about retail outlets playing bagpipe music for up to ten hours a day.

Shirley-Anne Somerville, of the Chartered Institute of Housing in Scotland (CIHS), said the bill, in extreme cases, gave councils the power to seize items deemed to be a noise-nuisance - including bagpipes.

Noise levels from a single chanter can reach 122 decibels, which is double the level of a normal conversation.

Last night, Roddy McLeod, the principal of the National Piping Centre in Glasgow, called for MSPs to get behind pipers.

He said: "It is a bit of a shame that bagpipes have been singled out when other instruments can be a nuisance..."

Mary Scanlon, the North of Scotland Tory MSP, said even her constituents, who usually loved the skirl of the pipes, were "at the end of their tether".

She added: "I've been contacted by tenants who live next to souvenir shops and hear constant bagpipe music. We can sit here and laugh, but we are talking about eight to ten hours a day - and these are people who love the bagpipes.

"If a tenant complained about bagpipe music, would that constitute anti-social behaviour?"

Mon 22 Sep 2003

Pride and the pomp

KENNETH WALTON

Scotland's so-called national anthem is musical bilge. Anyone who has encountered a mass rendition of Flower of Scotland at Murrayfield or Hampden will appreciate how quickly its rhythmically uneven phrases lead to an uncoordinated disharmony of shambolic proportions.

The effect can be as mystifying as the free-for-all cacophony of Gaelic Wee Free psalm singing, or as intimidating as a lager-induced Friday night sing-along in a Glasgow pub...
The modal ending of the tune, with its doom-laden flattened leading note, for all its affinity to bagpipe intonation, sums up the futility in musical terms. Not even the toothy smile of a drunken Scot giving it laldy can mask that.

Mon 25 Aug 2003

Playing the bagpipes can cause hearing loss and repetitive strain injuries.

Bagpipes hit sour note for hearing

JAMES DOHERTY

FOR many a Scots regiment, the Highland bagpipe was as potent in the advance toward battle as artillery and rifles.

But a survey conducted by Piper & Drummer magazine has revealed the resonating force of the pipes can damage more than the morale of enemy troops.

Half of those surveyed reported hearing loss and repetitive strain injuries after years of playing.

Some 10 per cent also reported that their passion for the pipes had led to the break-up of marriages, while 84 per cent claimed to know pipe-band members who are alcoholics.

The news comes just a week after 7,000 bandsmen and women descended on Glasgow Green to take part in the World Pipe Band Championship.

James Bousquet, an acoustics expert and bagpiper, said many band members ignored his advice to wear customised ear plugs at a cost of £60 per pair.

Mr Bousquet said: "Sounds don’t have to be uncomfortably loud to be damaging. If pipers think hearing protection is too expensive, they should consider what they pay for a new pair of ghillie brogues and ask themselves what is worth more."

Eleanor Lawson, the president of the Institute of Occupational Safety and Health, said:

"I have attended many piping events, and it is incredibly noisy. If you were exposed to that noise level you must be putting yourself at risk."
These sorts of stories are typical of the major Scottish broadsheets, and it is a well-known fact amongst pipers that the best coverage of major piping events is in *The Oban Times*, a newspaper covering the Highlands, with far smaller circulation. Any coverage of a trivial story that makes mention of the pipes, particularly when it can be contrived into a denigrating headline for the instrument, is grabbed by newspapers and other media. Donaldson goes farther in his assessment of the media:

"During the past half-century the Scottish education service has consistently failed to teach young Scots – including those who went on to work in the media anything much about the place they live in. As a result, the Scottish press-corps, with a few honourable exceptions, does not know enough about the country to report it intelligently. This has created a kind of national amnesia difficult for people brought up in normal communities to appreciate, and it has had consequences for the pipes along with everything else.... The constant drip-feed of disparagement [from the media] encourages an attitude that the pipes exist somehow outside the normal order of things and the ordinary rules of social life."

(Donaldson 2005:76-77)

The media attitude Donaldson describes actively discourages audiences for piping, and the issue is further complicated by ongoing questions surrounding national identity. This media denigration is a symptom of larger
questions about the public image of the bagpipes in Scotland and issues surrounding identity that cannot be addressed here. For insightful analysis of the image of the bagpipes within Scotland and the wider branding of Scottish culture, see Paterson (2001) and West (1998).

'The skirl of the pipes' is a commonly cited media-phrase that bears no relation to the dedicated advances that have been made in the sound of the instrument. It also reinforces the military image of the instrument, which in my opinion has always hampered its acceptance as musical instrument. That aside, the improvement of the sound of the pipes is one of the positive effects of competition. The standard of intonation and stability has been improving now for years. Most players agree that the bagpipe of today is generally far better than that of twenty, thirty or more years ago:

Solo piping, I think, what's happened in solo piping is that the standard has just generally increased, and more people have better sounding instruments because of technologies that are available now...tuning time's decreased now, that's what the synthetic reeds have; a bit more stability and it's easier to get your drones stable...and make them stay in tune.

(Discussions Roddy MacLeod:21/01/2003)

The acquisition of an excellent finger technique for playing the bagpipes in competition is one of the most fundamental skills the aspiring piper must learn. In fact, because the finger technique has been standardised on the Highland bagpipes, it is now assumed that competition pipers should have
mastered it before competing. Interestingly, throughout the fieldwork for this study this aspect was rarely mentioned (except in relation to the ‘heaviness’ of pipe tune see Chapter 4) by pipers because it is seen as a prerequisite to performance.

The 2/4 Competition march: context

The 2/4 competition march as pipers know it today has its roots in the quicksteps of the nineteenth century. These early tunes are often printed in binary form with eight bars (four phrases) in both the A and B sections. Generally these earlier settings used simpler gracings than today’s competition marches. The rise of competition, and the Highland games circuit led to a demand for printed scores of tunes, and there was a great deal of publication and reworking of older tunes into new formats for competition, from the late nineteenth century into the twentieth. Cannon states that the 2/4 march format was:

"...well known since before 1700. They were called ‘Scotch Measure’ until around 1750, when they became ‘hornpipes’, replacing an earlier type of hornpipe in triple time... and many of them can be found in military fife collections as ‘Quicksteps’. (Cannon 1987:125)

Certainly, quickstep marches were established as a genre by 1828 (Cannon 1987:123) and they became popular with the army, which used them as
regimental tunes. A lively account of the development of competition ceòl beag can be found in William Donaldson (2000) where he discusses the beginnings of the competition march:

As the games circuit grew, the demand for music suitable for competitive purposes became more diverse. Ceòl beag... began to assume a more important role in the repertoire of the professional piper. Since the medium helped to shape the content of the material transmitted, the spread of musical literacy and the writing technologies which accompanied it began to affect musical structure. This was particularly evident in ceòl beag, where the rise of the written score was accompanied by the emergence of a new form, the 'competition march', which rapidly established itself as an important genre. The traditional quickstep seems to have been in existence in a form suitable for playing on the pipes for at least a century. In order to make it sufficiently formidable as a test in competition, technical demand had to be raised. This meant the introduction of elaborate variations on the basic theme, requiring high levels of dexterity to execute, and increased use of rich and complex ornament, and a considerable enlargement of the form itself, the typical two-part format with eight bars to the part growing to four, or possibly even six or eight parts. [In the context of piping, a 'two-part' format means a tune with two distinct sections usually eight bars long, i.e. not a melody with two-part harmony.] It took nearly two generations for these developments to achieve their stable modern form, but the basic formula was already in place by the 1850s. (Donaldson 2000: 216)
The reworking of pre-existing quicksteps into competition marches was, as Donaldson says, largely a matter of expanding the form and detailing more complex ornamentation, a situation paralleled in Texas fiddling, where Goertzen (2003) found, “In...modern explicitly contest-oriented styles, the changes are transparent: Variations of and additions to melody have produced new dramatic forms suited for the listening environment” (2003: 144).

On examination of older settings of pipe music, the basic melody is often retained into the newer settings of the tunes, particularly in the first two parts. Therefore, many of the melodic motifs that form the basis for analysis in Chapter three, were already laid down in previous settings of tunes from Donald MacDonald (1820s) onwards. For example, examine the first part of The 71st Highlander’s quick step (Gunn 1848:92)\(^{14}\) and compare it with the second example here; from Henderson’s collection (Henderson, Peter 1888:44) and the final example published in The Scots Guards collection (various 1954:154):

\[^{14}\text{In the final bar of the first example from Gunn’s collection I have used a ‘schneller’ mordent to denote the double D doubling on C. This doubling is not used currently and was unavailable to me in Bagpipe Music Writer Gold, the music writing programme I used for these examples. This doubling features two D gracenotes around a C gracenote.}\]
E.g.1: 71st Highlander's quick step (from Gunn)

The 71st Highlanders (Henderson's collection)  
arr. Peter Henderson

E.g.2: The 71st Highlanders (from Scots Guards vol.1)  
Hugh MacKay

As can be seen in the examples above, the skeleton of the melody is exactly the same, with only slight differences in bar 2 between them. Essentially the main differences are in the complexity of rhythm and ornament. In terms of the modal analysis (the subject of Chapter 3) melodic motifs have largely remained the same since the nineteenth century, the only differences being the expansion in number of available motifs through composition. Indeed, Donaldson suggests the idea of a body of traditional motifs of which many tunes share when he says,
"... [variation] methods permitted the simultaneous co-existence, as autonomous entities, of large numbers of sometimes quite narrowly differentiated compositions, which in an oral context might be fleeting realisations of a flowing continuum of related ideas."

(2000:219)

In the fourth of his excellent cassette tape series, the late P/M John MacLellan exposes the listener to a detailed exposition on the development of the 2/4 competition march, illustrating his points with many musical examples. He demonstrates, both in speech and on the pipe, how the simpler 'marching airs' [he uses this term interchangeably with 'quicksteps'] were developed by master composers such as Angus and Hugh MacKay, John MacColl, Willie Lawrie, G.S. MacLennan, Peter MacLeod and Willie Ross, into the competition march prevalent today. He shows through the comparison of historical settings that the playing tempi of marches had to slow down to accommodate more elaborate ornamentation and increasing note density. Here he comments on the beginnings of the development from quicksteps to competition marches:

"The duty of the piper in Highland regiments played a great part in popularising marching airs [quicksteps]. Such tunes were required to lighten weary feet on the route march, especially in the American Wars of Independence and in the Peninsular Wars. Pipers too in the Lowland regiments played their part as well.... The mid-eighteen thirties sees the first of the heavier type of march. Both Angus and Hugh MacKay, quite separately, began to experiment..."
with the music we know today as the competition march.

(MacLellan, P/M John 1974: audio recording)

By the early twentieth century the competition 2/4 march was established as a genre in its own right. During the twentieth century the number of 2/4s grew, and P/M John MacLellan singles out some composers for their skill in the arranging and composition of competition marches such as: John MacColl, Donald MacLeod, Willie Lawrie, G.S. MacLennan and Peter R. MacLeod. The status of these composers and the acceptance of their arrangements and compositions relied entirely upon their status within the competition piping world (Donaldson 2000:373), and it is a testimony to their musicianship that many of these settings were taken up as standards. (See Donaldson (2000:372-3) for further details of this stage in the development of ceòl beag.)

The competition march is now a popular genre, and many consider it as the core of the ceòl beag repertoire. This is perhaps due to the age of the compositions and their association with the great pipers of the early twentieth century. There are new compositions being composed today, but many of them are not performed in competition because of the slow rate of change in canonical repertoire that competition itself induces (see further elucidation of this point in Chapter 4).

This thesis concentrates on the 2/4 competition march and the manifold factors pertaining to its performance. In Chapter 3, the canon of marches is
explored, and the modal complex defined, with the main emphasis upon the
definition of the motifs common to this genre of music. Chapter 4 focuses on
several issues identified by discussion pipers as crucial to interpreting this
material such as competition, phrasing and pointing, melodic aesthetics. I
now begin with the first area of research pertinent to understanding bagpipe
performance, the sound of the pipes: Chapter 2 details the thoughts of leading
pipers on their individual sound, what it means to them and the research that
has been done on bagpipe acoustics. The final Chapter attempts to draw
together this thesis and offer ideas for further research, whilst highlighting
through composition, some of the concepts discussed in this study.
Chapter Two

Sound Aesthetics
Introduction to Sound Aesthetics

This chapter is an attempt to discover and explain pipers' aesthetics of sound. Bagpipe sound is crucial to individual identity, and the high value attached to individual sound was evident throughout discussions. Reliability of sound is also important to competition pipers; the bagpipe has to be very stable for competition as this is one of the main aspects upon which pipers are judged. Pipers do not evaluate elements of sound distinct from each other, rather, pipers regard sound as a whole, with individual pipers identified with sonic characteristics. This is reflected in the prioritising of concepts such as reliability and individuality over timbre, pitch and intonation. These western ideals of pitch, timbre and intonation are reflected in the acoustic literature on bagpipes, influencing my approach to the fieldwork. However, I have organised this Chapter according to the concepts that discussion pipers felt were most important and which give meaning to sound. In order to better illustrate the significant value that is attached to small differences in individual sound, I refer to recordings of various pipers that are contained on the CD of musical examples, Appendix 2.

I begin the chapter with an orientation to the bagpipes and some practical description of various elements in the creation of sound. In researching sound, I use the pipers' own words as evidence of their aesthetics, rather than attempting to quantify detail through acoustic measurement. This
approach has led to an understanding of the pipers’ sound and their motivation to produce it rather than my acquisition of advanced acoustical knowledge, which others are far better qualified to apply. The history of acoustic study of the bagpipes begins with Ellis in 1885. Further significant studies include Cornish (1952); Lenihan and MacNeill (1954); Harris and others (1966a, 1966b); Gould-King (1978a, 1978b); MacKenzie (1978, 1995); Muir (1986); Spicer (2001) and Thrasher (2002).

A difficulty arises at the aesthetic point when the sound ideal is described. For example; what is a ‘rich’ sound? What is a ‘full’ sound? The scientific explanation, of which there have been a few attempts, might say that a rich sound is one that includes a greater number of ‘harmonics’ and recently pipers themselves have started using this word to describe the richness of sound. However this does not answer the question of what that sound means to that individual, relative to their peer-group. The value of this research is that it allows the reader to understand what individual sound means to pipers. What does acoustical evidence that is not contextualised through meaning actually tell us? The science-based approach, when combined (as in Spicer (2001)) with an ethnological approach, could reveal further worthwhile insights into why and how pipers create individual sound. In this Chapter I do not attempt a full analysis of timbre, but I use visual representations of harmonic spectra to illustrate the discussion of how individual sound is manifested by the discussion pipers. Further acoustical research into the use
of timbre as a means of expressing individual identity in piping would make a valuable contribution. A piper's aesthetic exists as an intentional object, (as opposed to a material one) and it is this intentionality, as perceived by pipers themselves, that is the subject of this short examination of bagpipe sound aesthetics.

Blowing and Timbre

The Highland bagpipe is notoriously difficult to maintain, primarily because of the presence of four reeds all greatly affected by many variables, the foremost of which is moisture (see interesting vignette about moisture and water traps by McNeill (1967)). The pipe is also influenced by materials and design. Next to the materials and design of the instrument and reeds, discussion pipers identified blowing as crucial to individual sound. Everyone blows their bagpipe differently, at a pressure that feels comfortable and that produces the right sound for them, influencing both the volume and timbre that each piper produces. In the beginning, the most important process a young player learns is to blow steadily. Learners are continually striving to blow the instrument more steadily, and the steadier the blowing, the steadier the sound. This is important in producing an unwavering pitch from the bagpipe. The discussion pipers identified steadiness and reliability as key aesthetics for the competition piper because they contribute so much to performance. Beyond steadiness of blowing, there are different pressures for
blowing that also affect the overall sound. In fact, various pipers have suggested to me that blowing harder into the pipe will produce a richer sound, and this appears to be supported acoustical and anecdotal evidence in MacKenzie (1978, particularly pp.21-22). In a very long piobaireachd or any set of tunes that may take a long time to play (anything longer than about fifteen minutes), pipers may tune the drones slightly sharp of the chanter and blow harder at the start and ease off incrementally during performance as the reed sharpens up. One leading piper remarked to me several years ago that during his performance at a major piping competition he employed this technique, and was increasingly concerned as time went on that his chanter might 'choke' (i.e. momentarily stop - see glossary in Appendix 3) due to lack of pressure. He was trying to maintain the tuning of the instrument by reducing the pressure of blowing in a very long tune, approximately 18 minutes of piobaireachd. (Fortunately he did not choke and he was successful that day.) With practice, and effort, pipers become expert at blowing pipes and use this to produce their own sound.

There have been three acoustical studies dealing with harmonic spectra using comparisons between bagpipes (and therefore pipers): Harris, Eisenstadt and Weiss (1966a and 1996b); MacKenzie (1978); and Spicer (2001). In general, the greater the number of harmonics, the greater the richness of the pipe, so when pipers discuss the varying timbre of different bagpipes and
reeds, they are making a comment about the harmonic spectra. In MacKenzie (1978), five different bagpipes are compared, four of which are played by professional pipers and the fifth by an amateur. The measurements of their harmonic spectra are displayed in an easily comparable fashion and one of the points emphasised is that the professional pipers' tenor drones were very closely matched (almost identically in a set of Henderson drones from 1886) in terms of the harmonics they produced, whereas the amateur piper's tenor drones were not. Furthermore, in this study, great emphasis was laid on the personal nature of the bagpipe sound. For example, here is Seumas MacNeill who was closely involved in the study, commenting on this aspect:

"...I think what a piper produces is very personal. The sounds that John Burgess and John MacFadyen produce is not the tone I want, and I'm sure that we could all say the same of each other. I am sure they are producing what they want and they don't want my sound.... So it's really a personal thing – what suits one piper may not suit anyone else." (MacNeill, Seumas in MacKenzie (1978:14))

Harris, Eisenstadt and Weiss, make a convincing case for demonstrating the effects of blowing and use, on the mellowing of chanter reeds. They compare the spectra of the acoustic output from the same chanter with a new reed and then the same three months later (1966b:8-11). Interestingly, there seems to be a tendency (with the exception of Spicer) in the acoustic study of bagpipes, not to actually name the pipers used, and therefore to make it more difficult to compare the results of various studies.
Jane Spicer (2001) uses a spectrum analyser to demonstrate that two leading pipers, Alasdair Gillies and Jack Lee, maintain two very separate sounding bagpipes over a period of years:

...a premier player’s sound becomes his individual hallmark, and one can often identify the player just by his sound alone...The fact that both players have maintained the same yet different harmonic structures over at least a three year period indicates that each player has an extremely well-developed sense of the sound he is striving for and is able to produce this sound reliably. (Spicer 2001:27-29)

This type of research that combines acoustics with ethnological enquiry offers a real way forward in the understanding of not just what bagpipe acoustics are, but also the reasons behind it. Timbre is indeed a personal choice as demonstrated by these studies and by pipers everywhere. I conducted a small-scale comparison of the timbre amongst the discussion pipers through the comparison of harmonics produced by the entire bagpipe (drones and chanter sounding all at once). I used reliable recordings of their performances to produce a harmonic spectrum of each piper playing low A on the full bagpipe. (See Appendix 5 for the complete tables of harmonic data extracted from the spectral analysis.) It must be understood that the following comparison of pipers has been affected by many variables including different recording conditions, variable microphone placements, variable reproduction qualities on commercial Compact Discs amongst other factors. However, in
order to counteract these many variables, the recordings taken were mainly from the Glenfiddich Championships which helped to ensure that the conditions of recording were standardised: i.e. the same room with the same recording equipment (BBC). However, out of eight analyses, three were taken from other sources (see Appendix 5). These recordings not only allowed me to make a basic comparison of timbre between players, I was also able to note the absolute pitch of each low A, which is useful for the discussion of rising pitch (see below p103.) Every recording was captured into the software package Protools 6.7 and then normalised: that is to say that they were all adjusted to the same volume in order to facilitate accurate comparison. From this programme a representative example of low A was sampled for each piper and was analysed in the package Audacity. This then provided a visual spectrum analysis and more accurate textual readings, upon which this comparison is based. The textual readings from each piper’s spectrum analysis gave every harmonic in the spectrum and their relative magnitudes. The comparison between the pipers is based upon the magnitude of the 1st to the 13th harmonics of each bagpipe playing low A with the drones sounding. In order to compare the harmonics between pipers I had to locate the same harmonics in each spectra at slightly different pitches (each piper has a slightly different overall pitch). To do this, I used a pre-calculated table

1 I would like to thank Alastair MacDonald and Tommy Johnstone for their advice.
showing the expected pitch of each harmonic of the note low A, in order to accurately locate the correct harmonic of low A in the textual readings from Audacity. Thus I could ensure that I was comparing the same harmonics (albeit for the entire bagpipe sound) between pipers.

In considering the harmonic spectra below it must be understood that even though the pipers are all playing the same note on the chanter (low A), the spectra are greatly affected by the relative intensities of the drones. When the chanter is sounding low A the harmonic spectra not only show the harmonics of the chanter but that of the drones also. This results in a much more complex picture with many more harmonic peaks. Crucially, not all the harmonics of the drones coincide with those of the chanter throughout the spectrum, so that some harmonic peaks are in fact greater in magnitude because of the added drone harmonics, and other peaks appear in a spectrum because of the drones. These peaks would not appear if measuring the chanter by itself. The visual representation is intended to show the timbre of the entire pipe, so it is appropriate to show the full spectral analysis of bagpipe sound in a discussion of timbre. The harmonic spectra shown here provide a useful visual representation of the overall sound for each piper playing low A. However, it must be remembered that these spectra are only to support the discussion of the pipers' own intentions and values concerning timbre, which are of greater significance.
Roddy MacLeod knows when he gives his pipes to someone else to play, they sound different, with no change in the set-up of the bagpipe: “a lot of the sound is in the blowing”. I have often seen the same set of bagpipes passed between players and a different overall sound being produced by each player, due to altered blowing techniques. Roddy MacLeod is reputed for his high A², which has a ringing sound to it. He thinks this is a product of his blowing technique, there being very many variables and slight variations in pressure causing big changes in overall sound. He describes his as a “rounder sound”. For examples of Roddy’s sound listen to tracks 3 and 5 from the CD of musical examples, Appendix 2. The following visual representation shows the harmonic spectrum present in Roddy’s bagpipe when playing A (the textual readout of each spectrum is more accurate than the visual representation, these are given in tables in Appendix 5):

2 I myself have heard other competitors refer to ‘the Roddy MacLeod high A’ as a reference to this ringing sound on the top note of the chanter that he has cultivated.
Firstly it is worth noting that all the pipers showed similar harmonic features such as a significantly reduced 7\textsuperscript{th} harmonic in comparison to the other harmonics. All the bagpipes show significantly strong harmonics up to the 5\textsuperscript{th} harmonic where they begin to drop down in magnitude. Roddy MacLeod has relatively high (in comparison to the others) and consistent harmonics throughout the range from 476Hz to the 13\textsuperscript{th} harmonic at 6202Hz. He has particularly strong low harmonics from around 100Hz through to the 5\textsuperscript{th} harmonic of 2384Hz at a very large 16 decibels, which also contributes to the warmth of his sound. This is in keeping with his aesthetic of a ‘round’ sound and reputation amongst pipers for a full, rich sound.
Throughout discussions, Chris Armstrong emphasised that sound and blowing are very important aspects of piping. He feels that it is important to blow “solidly”, to be in total control of the instrument. Chris also controls his blowing to produce a vibrato on high A. He reduces pressure in the bag to get this particular vibrato effect on the high A. As blowing is largely a non-verbalised skill, each player learns it individually and develops their own technique. It is difficult to describe the range of blowing techniques, particularly as I am only familiar with my own technique. This leads to statements by pipers such as, ‘it’s all in the blowing’ that emphasise its importance, whilst telling us little about how it is done. I did explore this issue in discussions, however verbalisation made it difficult to describe blowing with all agreeing that steady blowing was essential to sound. The main difference between players is that some blow harder into the pipes than others. Additionally, some take many more breaths, making many more inflations of the bag than others, which also affects the sound. It is worth noting that the ear (as well as breath control) plays a large role in the blowing of the pipes. During performance, top players continually monitor the pitch of each note on the chanter and correspondingly alter their blowing pressure to try and tune the note in to the drone tonic. This aids the tuning of the pipes and gives the effect of total solidity. Chris’s sound is represented visually here and is interesting firstly because he is pitched considerably higher than other pipers (this is discussed fully in the section dealing with pitch on p103).
This perhaps has the effect of reducing the overall magnitude of the harmonics, reflected in a narrow range of −6 to 12 decibels. However, he does have considerably stronger upper harmonics in his sound which reflects his "brighter" sound which is a key part of his identity as a player (see p113):

In contrast, Willie McCallum and Greg Wilson both feature strong harmonics in the bottom ranges. The fundamental of low A for both pipers is very strong and their 3rd and 4th harmonics have almost identical magnitudes at around 11 and 17.9 decibels respectively (see tables for comparison in Appendix 5). This is represented well by their very similar sound spectra shown below:
Willie McCallum low A = 476Hz

Greg Wilson low A = 478Hz
Pipers like Greg Wilson and Willie McCallum create much of their individual soundscape by slight alterations in the set-up of the instrument. This requires practical knowledge about how to manipulate reeds, which pipes to play, the type of bag to play, and the blowing method. Even the way in which the technique is learnt from a teacher can alter the overall effect in a performance, for instance, whether you hammer the fingers back down to the chanter or whether the emphasis is in springing them off. There are differences between players in the way they approach technique and all of this practical knowledge is the subject of regular, vociferous debate at competitions and in the piping press. For example, it was demonstrated to me in a lesson with the late P/M Angus MacDonald M.B.E., that in order to achieve a more harmonious sound, I should ensure that both of the tenor drones are tuning in the same place and functioning at the same pressure. This is done by manipulating the briddles on the drone reeds in the tenor drones, and it made an immediate improvement in my personal sound. This is now something that I regularly check by blowing both drones in the mouth. By having both tenor drones operating at the same pressure, pipers can ensure that their drones will stay in tune with each other and thus create a more reliable performance. In the following extract from my first discussion

3 There are many good recordings of Willie McCallum and Greg Wilson available. For example: Both pipers can be heard on Glenfiddich Piping Championships, Piobaireachd LCOM5267 Lismor Recordings as well as The Worlds Greatest Pipers series of recordings.
with Willie McCallum he tells a story that demonstrates how important reliability of sound is to solo pipers:

WM: I think the difference in the set-up, and I think an ideal set-up probably is cane drone reeds, I think that that set-up is governed by the amount of time you have and the quality of the drone reed you’ve got. And the reliability, I think probably there’s a very small difference depending what you’ve got with the set-up with plastic. There is a small difference with cane, I think sometimes it’s over-rated, but I think certainly there is a small percentage of a difference. I, when I moved onto using plastic drone reeds, I used a cane bass at first, because I couldn’t get the one that suited me in and it took me years to get that, certainly the first couple of times I played with non-cane drone reeds, I didn’t tell anyone I was doing it, I just did it, and I actually asked; it was one competition I played in and I hadn’t told anyone and I played really well and the pipe went really well and a lot of people were impressed with the pipe and I didn’t let on, and I asked a few people, probably people who would like to remain nameless at the moment, but certainly four people who are absolutely legends of piping and sound; and they didn’t know. That was good enough for me. And I thought, if I can get that set-up every time that’s got to be good, because I knew they weren’t going to move because I’d worked on them and I tested them out quite thoroughly. And I thought, ‘they’re not noticing so there can’t be that much difference between them’ they would know if they weren’t sounding the same, because the guys had really finely, finely tuned ear. So that led me to say, right well, why cane? Why put myself through all the rigours of setting them up, when I can put them [plastic drone reeds] in and they go, and
they go really well? And they never stop, and they, well they go out of tune very slightly. But most of the time you could say they don’t, and that was how I developed the interest in them, and I’ve stuck with them ever since. And I’ve added another reed in the bass which suits me fine, so that’s where I am with that.

(Discussions Willie McCallum 27/02/2002)

This shows not only the closeness in sound between the best synthetic drone reeds and cane drone reeds, but also the importance of the individual sound, and the high value placed on reliability for competition. In performance, and in particular competitive performance, it is expected that the drones must not go out of tune with the chanter, and vice versa. This is a major challenge for less experienced players.4

Different teachers have different techniques for producing a good sound in their pupils: Angus MacColl had two very different teachers who had different approaches (the late Ronald Morrison of Glasgow and Ronnie Lawrie of Oban or ‘big Ronnie’). This reflects my own tuition; I was given some advice on how to set-up the bagpipe but I was largely left to find out how to set up the instrument myself, through experimentation. Angus MacColl explains this:-

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4 For an amusing attack on the shift from cane to synthetic reeds see Wallace (2000).
AM: Well, with big Ronnie, he was a hell of a man for experimenting with things. I just like to stick with what you’ve got, I don’t like fiddling about too much. But eh, Ronald [Morrison], I didn’t do anything with the pipe, it’s just over to you, get them going yourself, Ronald Morrison like, but big Ronnie was always experimenting with the pipes. I found, that, anyone else doing anything to the pipes, was no use, I had to do it myself. It might, the likes of big Ronnie, would maybe take the pipes, well it was all cane reeds in these days, and he would get them going by his way of it, but I found, when I got home I had to, maybe I was making it worse, but my ear just wouldn’t accept what someone else was doing to them. (Discussions Angus MacColl: 15/02/2002)

Angus MacColl did have role models for sound and one of these pipers was Fred Morrison who is a contemporary:

AM: There was one guy got them going for me right enough, that I, it was unbelievable actually, it gave me an awful lift when I was younger, it was Fred.

SM: Morrison?

AM: Fred Morrison uh huh. I’d seen Fred take out a, to me it was unbelievable, open a box of brand new reeds, and just a wee flick and just a wee rub and he would get them going and they would stay steady, with me I would get them, and great, steady and then the middle one would go mental and stop or something, you know. So I did a wee bit with him, and he could get them going and they were good.
SM: All cane?

AM: All cane, aye, yup, he set the pipes up for me, when I won the silver medal at Oban in '86, '87 whatever it was, and the drones were just dead steady. He put in a hell of a double tone. You could blow out or you had to stop with your finger, and once it clicked in, they were dead steady, you could ease right off, or blow hard and the drones just stayed the same. (discussions Angus MacColl 15/02/2002)

Analysis of Angus MacColl’s timbre demonstrates an evenly spread range of harmonics throughout the frequencies, with a very strong 4th harmonic of 19 decibels. Angus MacColl explains his ideal:

AM: I just find the pipes in tune with themselves. Aye, just that sort of round, mellow thing that we were talking about, everything just seems to come together and it all blends in the chanter and the drones, and there’s no wavering, it’s just that round steadiness. (Discussions Angus MacColl: 15/02/2002)

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5 This sample was taken from an excellent album entitled Angus MacColl, A Tradition of Excellence by Maddog Productions.
Personally, I have often reflected upon my own sound and am always trying to achieve a rich sound, where the drones and chanter integrate and sound as one instrument. This effect is probably the effect of having learnt my piping on all cane drone reeds, only switching to plastic drone reeds in the two tenor drones around 1998. Therefore I think for myself and anyone brought up on the ‘cane-sound’, the ideal sound aesthetic involves something that sounds as close to cane as possible, giving a rich, sonorous sound with a high degree of upper harmonics. The majority of competitors now have chosen to play synthetic reeds, made from many different materials including various types of plastic, carbon fibre and even metal components. These are now popular
because they are less vulnerable to moisture, and are therefore more reliable.

The debate over synthetic versus cane reeds has been vociferous over the last ten years and there are still a small number of pipers who still play cane drone reeds. In the following discussion extract Greg Wilson, one of the world’s leading players, talks about why he chooses to play cane instead of plastic drone reeds:

SM: What about the actual quality of sound of cane over plastic? I mean, to your ear what’s the difference?

GW: I think cane is, I think there’s a couple of differences I think the sound lives a bit more, you get a crisper sound from a cane drone reed, I think a lot of the synthetics you get a duller sound. Not all synthetics, but most of them you get a duller sound. So the quality of interaction between drones and chanter is nowhere near as good

SM: It sounds separate to you? [The drones and the chanter when playing plastic drone reeds]

GW: To me it sounds separate...I like to produce a total sound which is a warm sound, I don’t know if I’m describing this very well but, it’s a warm sound and it fills the room without being loud; it’s a big sound but it’s not a sound that’s in your face...

SM: It’s a different sound.
GW: The other thing is, it's not just a sound, it's just a feeling a physical feeling when you're blowing in and you want to lean into the chanter you feel like you've got something to blow to. If you've got cane drone reeds. I always found it feels different when you've got the synthetic ones, they, they vibrate differently it feels like you've got a wee bit more air going through. I think the cane takes less air, some of the, most of the synthetics take more air...

SM: So do you find that when you get the pipes really good, Greg, really in tune, have you ever noticed that, as the chanter and the drones get more in tune and the whole instrument gets closer that you can actually get a louder sound?

GW: You do, it is a louder sound, because you're producing more harmonics and that's the sound that fills the room. It fills the great hall at Blair Castle, it fills the Eden Court Theatre at Inverness. I mean another reason I do the cane reeds, not just because of the sound is because of the feel. I mean I'm a competitor, I mean first and foremost what I do is compete but I pipe for enjoyment obviously as well. But if you're going to compete you need to stick out in the field, you need to be able to stick out, and stick out in a good way not in a bad way. And the thing is if you can get the cane sound going and going really good, making sure it's lasting steadily through the performance; as a pipe, that will stand out amongst everyone else. I mean that's when the judges will need to learn, I mean some of them have, but a lot of them do need to learn to make value-judgements on the quality of sound of the instrument. I think too often people confuse a steady sound with a good sound. Just because it's steady doesn't mean it's good. But
the first thing we need to look at is a steady sound and I think a lot of the boys are getting away fairly easily, saying, well that’s steady that works, it’s not going to go out of tune; I’m happy with that and they’re not going to the next level, and saying, ‘well what quality of sound is it?’ It’s an observation, it’s not a criticism really. (Discussions Greg Wilson 31/05/2001)

Greg Wilson, and every other competitor at the highest level of solo piping has spent a lot of time, energy and thought deciding on what sound is right for him/her, and herein is the crux of the aesthetic: it is the development of an individual, stable and high quality sound that is important.

Gordon Walker is another piper particularly well known for playing a superb instrument that is always ‘well balanced’. Pipers use this phrase to describe the volume and interaction that results from careful manipulation of the drones relative to the chanter. This balance can be seen in the spectrum analysis and in the decibel readings taken from it that show a range of medium to strong harmonics from the fundamental of low A to the 13th harmonic:

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6 For an example of this listen to the CD, Glenfiddich Piping Championship, Ceòl Beag, March, Strathspey and Reel CDMON812, Klub Records.
This 'balance' and the individual sound can be achieved in many ways, due to the many variables that influence the sound of the bagpipes. For example, the type of bagpipes, the particular drone reeds, chanter reed, the way in which those reeds are set-up, the type of bag. The following section deals with some of these variables and how they are manipulated by pipers to achieve individual sound.

**Bagpipe orientation**

The bagpipe has many different aspects that colour the overall sound and some of these will be explored in this short section devoted to bagpipe orientation.
The Highland Bagpipe

(Figure 1: reproduced from Cannon 1987:11)
Moisture: Moisture, and the controlling of it, plays such a fundamental role in piping that it has to be included in any organological description of pipes. This cantankerous variable greatly affects the sound of the pipe because a certain amount of moisture is required for reeds to produce their optimum sound (see Kennedy 1979b). A stable bagpipe is a bagpipe with a stable moisture content: too much moisture or too little moisture results in instability of pitch and a changeable instrument, or even major changes in the intonation of the chanter and drones. The majority of pipers now use a water-trap to combat excessive moisture. This device is usually an extra cylinder inserted into the blowpipe stock, allowing air to pass through and excess moisture to be caught around it, often in combination with a tube inside the bag. Using a water-trap enables moisture to be expelled from the pipe and can significantly lengthen the stable playing time (on the subject of water-traps see MacNeill 1967). Pipers warm-up their instrument before a performance, usually from between 10 to 25 minutes. This gives the pipes time to heat up with the hot, humid breath of the player and for reeds to stabilise. Once the pipe is warmed up, then they are usually stable in pitch and intonation for at least 15 minutes, and up to 30 minutes; depending on the type of set-up and the piper. Pipers often talk about wet or dry blowing, ‘wet blowers’ will have less time to play as their pipes saturate faster. Climate also has a large effect upon the amount of time for blowing, with colder and humid climates saturating the pipes faster. In fact, Gould-King (1978a)
studied the effects of varying climate upon the tuning of the pipes and argues that:

"...moving from Johannesburg [a relatively dry climate] to Durban, where relative humidity and temperature would be high, would cause a set of pipes tuned in the inland city [Johannesburg] to sound flat at the coast, especially in Winter when there is a sharp differential between the two climates: cold and dry versus warm and humid sub-tropical....
The serious piper will, therefore, take heed the week before, the day before and on the day of the competition, the expected and actual weather conditions and probably save himself considerable grief by being prepared not only for the weather, but for draughty halls and other strange places where pipers are expected to perform and to maintain their instruments in perfect condition." (Gould-King 1978a:2-5)

I myself have had considerable experience in having to 'manage' moisture before the performance, and Gould-King is right in emphasising the dramatic effect (and offering some suggested solutions) that variable climates can have on tuning accuracy and stability. Moisture and climate therefore require careful consideration, making warm-up timing in competitions very important, particularly for pipers arriving in Scotland from drier climates. More experienced players judge this factor successfully, in order to allow themselves the best and most stable performance.
The bag: A sheepskin bag is the traditional material used for the bag, but this requires seasoning in order to keep it airtight. Synthetic bags do not require seasoning, and are theoretically airtight when made. Generally, the natural materials will give a richer and fuller sound. During the course of my research I have experimented with various different bags to ascertain how the difference in sound is achieved: In an attempt to produce a sound with a high degree of upperpartials without the trouble of constant maintenance through 'seasoning' the bag to keep it airtight, I tried a bag that employed both sheepskin on the outside and a synthetic material inside. This bag did not provide the rich sound that the unaltered natural bag provides, and I therefore concluded that the seasoning that is inside the bag must have a crucial effect upon the production of upper partials. As moisture is such a fundamental factor in the production of sound, there are now bags with tubing systems that use cat litter to eliminate moisture before it hits the reeds. The cat litter soaks up the moisture from the breath, and the air then travels through tubes to the individual reeds. There is a plethora of bags available, all affecting the resulting sound. See Appendix 6 for two adverts for leading synthetic bags, one with a moisture control system.
The drones: Pipers make choices about the pipes they buy. To many players the best makers of bagpipe drones were R.G. Lawrie\textsuperscript{7}, Henderson\textsuperscript{8}, Glen\textsuperscript{9} or MacDougall\textsuperscript{10}, from before World War II. These generally give an integrated, rich sound and some would claim that the age of the wood alters the sound. Many top players use these drones, including the pipers in this study such as Roddy MacLeod, Greg Wilson, Angus MacColl and Willie McCallum. Some players use modern bagpipes and also achieve consistently excellent sounds, for example Jack Lee and Chris Armstrong, who both use recently manufactured Naill\textsuperscript{11} bagpipes. Individual makers are identified with particular sounds: e.g. Lawrie's and Henderson bagpipes typically give a big, full, rich sound, whereas Glen and MacDougall drones result in a smoother, rounder and quieter sound (eg. see MacKenzie (1978:13)). Campbell lists 32 bagpipe manufacturers currently making instruments from Glasgow to Cardenden, through to South Africa, Pakistan and elsewhere (Campbell, J. 2001:171).

Drones also usually have an optimum tuning point, where they give their best timbre. Most pipers I know have been taught that this is where the

\textsuperscript{7} Glasgow based company existed 1881-1980s.  
\textsuperscript{8} Glasgow based company existed 1880-1973.  
\textsuperscript{9} Edinburgh based company 1833-1978.  
\textsuperscript{10} Perth, Edinburgh and Aberfeldy based company 1792-1919.  
\textsuperscript{11} Somerset (England) based company 1960s- to date.
tenor drone top section of the drone sits on the drone pin with a very small amount of hemp showing.

*The drone reeds:* The farther into the drone that the reed goes, the sharper the pitch of the drone, and vice versa. Drone reeds are single bladed, and there is a bewildering variety—perhaps more than 20 (for example Ezeedrone [sic], Ross, Henderson, or Rocket reeds). A crucial factor in the sound of the drone is the length of the tongue of the drone reed. A longer tongue gives a flatter pitch. There is also a range of materials drone reeds are made from. These range from the traditional cane (usually French often called ‘Frejus’ cane, Spanish or Californian—all *Arundo Donax*) to the many types of synthetics, introduced from the early 1990s onwards (on the subject of *Arundo Donax* and its properties as a reed, see Schmidt (1992)). Synthetics include drone reeds made from plastics, carbon fibre, metals, brass, aluminium and of course combinations of these. The advantage of synthetic reeds is that they are more stable, and therefore can be kept in tune for the whole performance. Many pipers now perceive cane to be a more risky choice of drone reed, but accept that it gives the traditional and ‘best’ sound aesthetic. However, there are also many pipers who feel that the synthetic reeds are indistinguishable from cane reeds. Here is the late P/M Angus MacDonald commenting on the cane and synthetic issue in drone reeds:

Interviewer: When you’re sitting on the bench [i.e. judging], do you have a preference for cane or synthetic drone reeds?
P/M A. MacDonald: If a man's producing the sound for me, I don't care what the reeds are made of. If he's producing the sound I want to hear, and my ears are used to hearing all the years, particularly if his drones are steady, and he's playing music to me, and his technique's all right. Half the trouble used to be getting the drones to stay in. How many great performances have been spoiled by somebody's drones going off? I think these new synthetic reeds are made to stay in. An awful lot of people are playing them today and getting good results with them. People whose pipes have gone off all these years are now having steady drones because of the synthetics.

Interviewer: Do you think some judges still have a prejudice for cane?

P/M A. MacDonald: Only if they know that you're definitely playing synthetic as opposed to cane.... The good ones I've heard are damn good. (MacDonald, P/M Angus. 1998:29)

The variables are increased again when one considers that most pipers use a combination of different types of reeds in order to create their own special sound, that suits their instrument and aesthetic ideals. I think that there is a very slight difference between cane and the best plastic drone reeds, namely a small reduction in the upper partials. Synthetics give fewer harmonics and therefore produce a slightly duller sound. However, the difference is very
slight and I use two synthetic drone reeds in the tenor drones, and a cane bass drone reed. I feel this gives the best balance between quality of sound and reliability. It must be noted that the majority of solo pipers began piping using cane drone reeds until the mid-1990s, and therefore their aesthetic sense of bagpipe sound is based upon a cane sound. It would be interesting to know if young pipers own a different sound aesthetic, one based upon the exclusive training and ear development with synthetic drone reeds (see advert for synthetic reeds in Appendix 6).

The chanter: The vast majority of competing solo pipers use a David Naill & Co. chanter, however this is now changing with a greater variety of makers on the market, and greater diversity of chanters from the top players (see Chris Armstrong’s advert for David Niall & Co. in Appendix 6). Other popular brands of chanter include Strathmore, Sinclair, Inveran and Shepherd. The Hardie chanter dominated the market in the 1960s and 1970s and was effectively superseded by the Sinclair and then David Niall & Co. chanters. Some players always use the same chanter while others feel that chanters have an ‘active life’. They change their chanter every 2 or 3 years, feeling that it loses its sound quality or the holes become too gouged from sharpening individual notes. Some feel that the chanter does not lose any sound quality and the story is often different depending on whom one speaks to. Gouging, or undercutting a hole on the chanter is common practice and sharpens the intended note. Pipers also tape over the tops of the holes to
flatten individual notes. A more fundamental method for changing the intonation and chanter sound is through reed manipulation (see below). Various areas of the reed can be shaved to produce a particular effect. However, the reed manipulation through shaving and squeezing is for basic tuning; the combination of gouging and taping is how a chanter is finely tuned. This is a continuous process, but many older pipers do not believe in gouging holes. Because of the importance of the chanter in sound, some people advertise on the strength of the prizes their chanters have won (see following page advert).

*The chanter reed:* There is one reed in the pipe chanter; a thick and short double reed. The overall degree of insertion in the neck of the chanter alters the overall pitch: the farther the reed is inserted, the sharper the overall pitch. Many other reed manipulation processes are used to alter the chanter sound including sanding, cutting, wetting and squeezing the reed in many specific ways.\(^{12}\) This is part of the art of piping that takes years to master, and can lead to a very individual sound. Almost all reed manipulation knowledge is gained through experience and from teachers: the only written source detailing this comes from P/M John MacLellan (1964). The pre-eminent

\(^{12}\) *In the author's opinion, there is a huge skill in knowing just how to shave a reed into tune. Certain sections of the blades can be shaved to flatten or sharpen individual notes, however, this knowledge is increasingly rare amongst pipers who tend to shave whole sections of the reed thus altering it drastically. For further information on reed-scraping techniques see David Kennedy (1979a) and Roger Gould-King (1978c).*
reedmakers during the formative years for most of the discussion pipers in this study (the 1970s and 1980s), were McAllisters - a firm of reedmakers in the central belt of Scotland. They handed over their business to Troy & son who now operate out of Vancouver Island in British Columbia. Other successful reedmakers that enjoy a solid reputation include (list not exhaustive): Caldwell (Northern Ireland); Henderson Reedmakers (Kirriemuir, Scotland); Donald MacPhee (Alexandria, Scotland); Megarity-Ross (Northern Ireland, now Scotland); Shepherd (Fife, Scotland) amongst others. See advert for Murray Henderson reedmakers in Appendix 6.

Generally solo pipers play at a higher pitch than pipe bands. This may in part be due to the choice of chanters that solo players choose. Often pipe bands choose to play a plastic chanter and invariably soloists tend to use a wooden chanter because received opinion is that the timbre is better from a wooden chanter. It is also because chanters need to be ‘matched’ for bands and plastic is cheaper than wood. It is easier for pipe bands to set their pitch together more closely with plastic chanters because of the homogenous properties of plastic as compared to the variegated nature of wood.

For the competitive piper, sound is the most fundamental aspect of their performance. A good sound is the first thing a judge listens for and expects in a performance. Pipers make choices about the set-up of their
instrument and the combination of the reeds, bag, drones, chanter and blowing, in order to achieve their individual sound. The pipers in this study all maintain superb bagpipes. The sound of the pipes is not only a vehicle for their music it is an expression of individuality. Pipers become known for certain characteristic sounds.

"There's probably something in the individual personalities [emphasis added] in setting the instrument up. As long as the instrument is balanced and it is in tune and the drones are steady, I think, you can get away with different levels of pitch within reason. I think probably the sound I've got has developed in listening to people over the years that had good instruments." (Willie McCallum, in The Voice magazine 2000:25) [Further discussion below]

Reliability was identified through my discussions as a key factor in the sound aesthetic. This also contains the idea that a sound can be more or less competitive; a performance will be discounted no matter how good in any other respect, if the sound is in bad in some way. Because of this, pipers spend a great deal of time testing different combinations of drone reed materials for reliability in performance. This is an example of a cultural decision about sound aesthetics, the choice being a trade-off between the reliability of synthetics against the ideal, traditional sound of cane.¹³

¹³ For further reading on bagpipe orientation for the non-piper see Cannon (1987) and Donaldson (2000:479-84)
The Double Tone.

Pipers often speak about a *double-tone*. This is where a drone reed plays a different pitch at a lower pressure to the full playing pressure, but when the full pressure is applied to the bag, the reed comes in to its correct pitch and stays there. This can also happen to a pipe chanter reed, when a note, often the F on the chanter, will play extremely flat (around a semitone) until blown slightly harder and it will play at the correct pitch. This is an undesirable phenomenon in a chanter, however in the drones it is often a desired happening, so that when full-playing pressure is reached the drone comes into proper pitch and it is a very arresting sound to hear (P/M Angus MacDonald was noted for this effect). To hear this, one must merely listen to any piper for the period after they strike the bag to begin and before they reach full playing pressure. The ‘gargling’, unstable sound from the drones that can be heard is labelled ‘double toning’ in the drones. For an explanation on why this happens, and how pipers deal with it see Eisaman (1970). For spectral analysis of the sound during a double-toning event in a tenor drone see Harris, Eisenstadt and Weiss (1966a:10-11).

Drone Tonic and scale

In discussions each piper described the aural process of tuning the chanter against the drone tonic. This is confirmed by the study done by MacKenzie
(1995) that shows chanters are tuned in simple frequency ratios, sometimes
called 'consonant ratios' (MacKenzie 1995:6) and pipers strive for a beat-less
interval against the drone tonic. Therefore, as MacKenzie (1995) suggests, the
overriding factor in tuning is consonance with the drone tonic of A. The drone
tonic is a constant sonic force in performance, although it may not be the tonic
of the mode the tune is in. It acts like a magnet pulling melodies towards it
and defining the intervals of the scale. It is omnipresent, and pipers
constantly bear it in mind. When Greg Wilson selects a new chanter reed he
is primarily looking for something that is 'believable'\textsuperscript{14} in pitch, comfortable to
blow and mostly in tune. However his discussion below shows that the fine
tuning comes when the reed is played against the drones. Here Greg Wilson
discusses what he looks for in a reed:

GW: You can get a rough reading, first of all you've got to have a
chanter, you've got to have a chanter which is going to give you a
good zing. And I, I don't like to blow too hard either so you need
good volume without, you need good value for money, or value for
effort so for what you're putting in you're getting a lot out, I don't
like blowing hard. You listen for rough intervals, making sure you
don't have a screaming sharp high G or a screaming sharp F or a
desperately flat B or whatever, and that's going to be something
that you might buy or persevere with. Then you need to check the
chanter with the drones, that's when you need to get the real test
whether the intervals are right or not.

\textsuperscript{14} See Glossary.
SM: So it's about a very close interaction between the chanter and the drones?

GW: Well the drones will tell you if the chanter's any good, if the chanter sound is any good. Just blowing it on its own it can sound quite good but when you put with the chanter; sorry, put it with the drones some notes can be significantly flat or sharp.

(Discussions Greg Wilson: 31/05/2001)

There is no one scale that pipers adhere to, therefore there is not a fixed standard intonation in piping. There is however, consensus on the tuning of the more consonant notes of the chanter against the drone tonic. However, often players choose to intone certain notes differently. The more dissonant notes: low G, B, D, and the 'Piobaireachd G' are the most variable from player to player.

"G' [high G] has the highest range and standard deviation, followed by G and D, and G' also varied most for individual players. The relatively high values for A' [high A] reflect the fact that many players deliberately flatten this note from its octave value. There is also evidence that some players deliberately flatten B." (MacKenzie 1995:6)

15 The 'Piobaireachd G', is a note peculiar to ceòl mór. It is played in the same manner as the normal G but with the addition of the third finger of the top hand on the chanter. In my experience, every high G note in all Piobaireachds, with the exception of some passing notes in the piece The Earl of Seaforth's Salute (Fáilte Uilleam Dhuibh Mhic Coinnich), are played in this fashion.
The variability of the bagpipe seventh against the drone tonic (high and low G) can be explained by the difficulty in matching the harmonics of the note to that of the drone. Minute intonational characteristics often become associated with individual players, and may have originated from regional idiomatic tunings or a particular teaching lineage. Because all piping is heard relative to the drones and other notes of the tune, intonation of the chanter is controlled by consonance with the drones, as opposed to the system of equalising semitones into 100 cent intervals developed for equal temperament, so that keyboard instruments can modulate between keys without retuning. MacKenzie (1995) notes that consonance with the drones has increased in the scale, with the notes G, D and high G (actually piobaireachd G in his study) having moved farthest towards consonant frequency ratios since McNeill and Lenihan (1954). He suggests that the increasing number of major piobaireachd events that are held indoors may have led to pipers seeking this ‘improved consonance’ (1995:14). On the other hand, Seumas MacNeill suggested that the change towards greater consonance was due to pipers “...playing with groups – folk groups and the like” (MacNeill, S. in MacKenzie 1995:26).

In discussions, there was consensus about sound on a verbal level. All the pipers were looking for what they described as a warm sound and also a concordant sound (see section on timbre above) where the drones and the chanter produce a warm consonance. Here Willie McCallum discusses the
intonation of the chanter and the interaction of the whole instrument. Like Greg Wilson he is looking for pure consonant intervals on each note against the drone:

WM: Aye, well that’s what I’m always trying...to get the balance, so that...in every note that you’re getting a certain harmonic which doesn’t produce any discord, and sometimes that can be difficult on certain notes, but that’s what you’re looking for: That you hit [it], it should feel right and it should sound right so that you get this sort of overall sound that fills the area you’re playing in...and quite often when I’m tuning them I would be looking for the interval that suits the drone, so that I’m not setting the chanter up on its own. (Discussions Willie McCallum: 27/02/2002)

Pitch

Alexander J. Ellis was a 19th century writer (often referred to as one of the ‘fathers of Ethnomusicology’) who recognised that different music-cultures are unique and not all scales are diatonic. In his groundbreaking article “On the musical scales of various nations” (1885), he recognises that all cultures may have different scales to the western European tradition based on different systems of intonation. Ellis gives Hertz measurements for each note of the chanter (discussed below) and gives a figure of 441 Hertz for low A. This only deviates by 1 Hertz from the standard A concert pitch on Western instruments. Anecdotal evidence from pipers combined with Lenihan and McNeill (1954) confirms that the overall pitch of the chanter has
risen considerably since 1885. They give the average frequency of the note low A as 459.3 Hertz. (They also state that the bagpipe, "conforms neither to just intonation nor to equal temperament" (Lenihan and McNeill 1954:231).)

MacNeill and Richardson (1987) go on to show the rise in pitch with the various measurements in Hertz from 1885 to 1974:

<table>
<thead>
<tr>
<th>Year</th>
<th>Value of A (cycles/second)</th>
<th>Experimenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1885</td>
<td>441</td>
<td>A.J. Ellis (Journal of the Royal Society of Arts, 485 (1885))</td>
</tr>
<tr>
<td>1936</td>
<td>446</td>
<td>G.E. Allan (Phil. Mag., Vol.29 (1940))</td>
</tr>
<tr>
<td>1937</td>
<td>450</td>
<td>G.E. Allan (Phil. Mag., Vol.29 (1940))</td>
</tr>
<tr>
<td>1974</td>
<td>463</td>
<td>S. MacNeill (Piping Times, Vol.27. No. 3 (1974))</td>
</tr>
</tbody>
</table>

(Reproduced from MacNeill and Richardson 1987:37)

Further studies not included then demonstrate the rise in bagpipe pitch: In 1966 Harris, Eisenstadt and Weiss measured the low A at "approximately 460" cycles per second\(^\text{16}\) (1966b:11) which is entirely in keeping with the rising trend shown above. Gould-King gives the pitch 459cps in 1978, but without offering any details of the measuring conditions (1978b:4). He also speculates that the reason for this rise in pitch from 440 Hertz is the practice of pipe bands and brass bands playing together (1978b:5). MacKenzie (1978) measured five different pipes giving five different Hertz measurements of

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\(^{16}\text{Cycles per second (cps) can be read as Hertz.}\)
465, 464, 472, 471 and 464 respectively; all of which are higher than the 463 Hertz given by MacNeill in 1974. Most recently, MacLean (2005:20) suggests that "... Modern readings would prove chanters are now regularly tuned around A-480 Hz". This reading is in line with my own measurements, but there are a number of leading soloists who play their bagpipes below and above this pitch. My own measurements of pitch show the following Hz measurements for low A:

**Roddy MacLeod 1989** 476Hz (*Piobaireachd* LCOM9016 Lismor Recordings)

**Brian Donaldson 1990** 476Hz (Glenfiddich Championships)

**Colin MacLellan 1990** 473Hz (Glenfiddich Championships)

**Gordon Walker 1990** 476Hz (Glenfiddich Championships)

**Willie McCallum 1999** 476Hz (Glenfiddich Championships)

**Greg Wilson 1999** 479Hz (Glenfiddich Championships)

**Angus MacColl 1999** 481Hz (*Angus MacColl, A Tradition of Excellence*)

**Chris Armstrong 2004** 488Hz (*Band Room Masters D13000096*)

These measurements (with the exception of Chris Armstrong) over the last 16 years, show little change in pitch with the majority of pipers playing somewhere around 477Hz. Chris has deliberately tuned his chanter sharp of other competitors as discussed below, and has in 2005 brought his overall pitch back down somewhat from 488Hz.¹⁷ Most pipers are playing a bagpipe

¹⁷ Fieldwork notes.
where low A is pitched somewhere around 477Hz or 478 Hz which, when combined with the studies mentioned, is further evidence of a rise in pitch. The in-depth acoustical studies, particularly MacKenzie (1978 and 1995), show that the absolute pitch of the bagpipe has risen and suggest that the scale has moved closer to consonance with the drone-tonic. There is one study that arrives at a different conclusion: "...for the present at least, the pitch of the bagpipe is settled." (Muir 1986:35). This is from a report carried out by George Muir et al (1986) at the Scottish Television studios in 1985. This conclusion is only based on a sample of one piper, which Muir and his team acknowledge as a deficiency (1985:33). They arrived at this conclusion by comparing Angus J. MacLellan's low A (460hz) against an identical 'expected' reading from Lenihan and McNeill (1954). My readings suggest that the pitch of the bagpipe has risen again slightly since the measurements recorded in MacKenzie (1978). 18 There is consensus within the literature (and amongst pipers) that the pitch and intonation of the pipes has risen and changed respectively over the last few decades (see Cannon (1987:29-30); Donaldson (2000:479-480); Kennedy (1980); and MacNeill and Richardson (1987:37)). I suggest that the rise may be due to competitive evolutions in the conceptualisation of the scale. One reason for a rise in pitch often cited by different pipers, is that a higher pitch in competition than that of the previous

18 See also Cannon (1987:28-31) for a description of the bagpipe scale.
competitor sounds brighter to the judges, and therefore is more likely to be placed in competition. Interestingly, the opposite change has occurred in the British brass band movement. In an effort to standardise brass band pitch, and bring it in line with concert pitch instruments, there was a movement from high to low (concert) pitch for brass bands in the 1960s:

“When the bands were converting from high to low pitch, we were doing two to three full sets a week.... It was difficult to get some bands to accept that they had to convert.... There were those who said it would ruin the brass band tone – take out all the brightness. Bloody nonsense, but they believed it.” (Fred Baxendall in Taylor 1983:190)

They ‘had’ to convert because the instrument makers decided that it was unprofitable and senseless to be manufacturing instruments at two different pitches.

As the pitch of the bagpipe has risen over the last 100 years so the scale has changed also. The earliest measurements of the bagpipe scale were published by Ellis in his fascinating article discussed above (1885). Some of Ellis’s acoustical measurements are based on museum instruments. His measurements of the Highland pipes have been controversial among pipers, with Lenihan and McNeill going so far as to say that he used an “unreliable
performer" (Lenihan and McNeill 1954). But Ellis’s measurements are significantly the first acoustical measurements of many instruments, and he has a reputation as a meticulous scholar; he bases his comparisons on precise measurements of Hertz, and acoustical ratios. Here are his measurements of the intervals of the bagpipe scale which he concludes are extremely close to what he labels the ‘Damascus temperament’ with only deviance of a few cents: (all figures in cents from the tonic)

<table>
<thead>
<tr>
<th>Notes</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>hG</th>
<th>hA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ellis</td>
<td>0</td>
<td>197</td>
<td>341</td>
<td>495</td>
<td>703</td>
<td>853</td>
<td>1009</td>
<td>1200</td>
</tr>
<tr>
<td>Damascus Lute Equal</td>
<td>0</td>
<td>200</td>
<td>350</td>
<td>500</td>
<td>700</td>
<td>850</td>
<td>1000</td>
<td>1200</td>
</tr>
<tr>
<td>Temperament</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Ellis 1885:498-499)

The figures that Ellis gives in cents would suggest that the C and F of the bagpipe scale are 50 cents (i.e. a quarter tone) flat of the modern major third and sixth, respectively, of equal temperament. My own experience of playing with other instruments confirms that the C is certainly flat of the major third in equal temperament, but certainly not as flat as a quarter tone. Ellis actually points out that the C was slightly flat and the high G slightly sharp. If we go farther and compare Ellis’s measurements in cents from low A to each note with the same from MacKenzie’s study (1978:figure 2) we can see that there is a considerable difference in the intonation of the C and F (the third and sixth)

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19 We have some information on the instrument that Ellis’s piper used, however it would be most helpful if had more information about his playing abilities.

20 Bearing in mind that MacKenzie’s measurements for high G are actually ‘piobaireachd G’ (1978:6).
of the scale from Ellis. It should be noted that MacKenzie’s measurements are the mean results from a large group of expert pipers, that at its maximum includes 21 different players:

<table>
<thead>
<tr>
<th>Notes</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>hG</th>
<th>hA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ellis</td>
<td>0</td>
<td>197</td>
<td>341</td>
<td>495</td>
<td>703</td>
<td>853</td>
<td>1009</td>
<td>1200</td>
</tr>
<tr>
<td>MacKenzie</td>
<td>0</td>
<td>196</td>
<td>386</td>
<td>505</td>
<td>702</td>
<td>883</td>
<td>991</td>
<td>1188</td>
</tr>
</tbody>
</table>

In comparing the C and F notes there are two conclusions that can be drawn — either the scale of the pipe chanter has dramatically sharpened on the C and F, or Ellis’s measurements were flawed by the use of an unrepresentative piper — “Mr. C. Keene, the well-known artist of Punch” (Ellis 1885:498). The dramatic alteration of the scale of the bagpipe seems unlikely because pipers do not record it in the oral tradition.

In Allan Thrasher’s (2002) article, he raises interesting points regarding the fingering systems and possible scale-types used on older Highland pipe chanters. He does not consider the overriding influence of the drone on temperament. He places early chanters in the context of European wind instruments through a comparative analysis of Highland bagpipes and Flemish and European recorders. This article sheds a refreshing new light on the much misunderstood temperament of Highland piping. In terms of tune range Thrasher suggests that his early chanters (all 18th and 19th century) were “capable of being played into the second octave by up to several notes, always including high B” (Thrasher 2002:17), suggesting perhaps a wider range in the
older chanters, possibly similar to the extended range of French and Flemish pipes. This suggestion of extended range in Highland piping is possible but not even the earliest sources contain any tunes outwith the current standard range of a ninth. The possibility of overblowing a chanter is a function of its conical bore, as opposed to the parallel bores of many other European pipes.

The next major study of the bagpipe scale was conducted by Lenihan and McNeill (1954), and more recently by MacKenzie (1995). MacKenzie (1995) documents the trend for smaller frequency ratios (than Lenihan and MacNeill (1954)) for each note of the scale in relation to the bass drone. Here is his suggestion of each note and the frequency ratios of the chanter in relation to the fundamental of the bass drone. As can be seen, he gives his findings as 'modern' and shows that they are smaller, and therefore, more consonant ratios than McNeill and Lenihan (1954):

<table>
<thead>
<tr>
<th>Note</th>
<th>Frequency Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>G Modern</td>
<td>7/2</td>
</tr>
<tr>
<td>G MacNeill-Lenihan</td>
<td>32/9</td>
</tr>
<tr>
<td>A</td>
<td>4/1</td>
</tr>
<tr>
<td>B</td>
<td>9/2</td>
</tr>
<tr>
<td>C</td>
<td>5/1</td>
</tr>
<tr>
<td>D Modern</td>
<td>16/3</td>
</tr>
<tr>
<td>D MacNeill-Lenihan</td>
<td>27/5</td>
</tr>
<tr>
<td>E</td>
<td>6/1</td>
</tr>
<tr>
<td>F</td>
<td>20/3</td>
</tr>
<tr>
<td>hG Modern</td>
<td>7/1</td>
</tr>
</tbody>
</table>

21 With the only exception being a music collection by 'Amateur' entitled, *The Bagpipe Preceptor* (1818).
This evidence in particular supports the suggestion that the tuning of the chanter is controlled by a search for consonance with the drone tonic because the smaller the frequency ratio the greater the consonant effect on the ear.

Relative Pitch

The concept of relative pitch is significant to the discussion pipers on two levels. Firstly, solo competition pipers do have an excellent sense of where they lie relative to other competitors. This involves a ‘relative’ pitch that works on a macro scale within the piping community. Secondly, pipers use relative ‘micro-pitch’ in determining the intervals of the chanter in relation to the drone.

It became clear from the discussions and from personal experience that it is necessary to have a ‘believably’ pitched bagpipe. The word believable is crucial to this thesis and it comes directly from pipers themselves. Here is how Greg Wilson phrased his answer to a question about reed selection:

GW: As far as sound goes I’m looking for something that’s not too high in pitch, something not too low in pitch, something that’s believable in pitch, as far as the highness of pitch or lowness of pitch.

SM: And that’s relative to everyone else?

GW: Yeah, I think so, well I’ll get onto that in a bit I think some people play too high a pitch, and some people just maybe on the
low side, I’m probably in the middle there somewhere. Although I have been quite high at sometimes and I have been a wee bit low sometimes as well. More often just in the middle, but something which is a believable pitch, and something which is a wee bit low to start with, if anything a wee bit low in pitch to start with because it’s only going to get higher as you blow the reed in. (Discussions Greg Wilson: 31/05/2000)

There are several processes involved in ascertaining the believable pitch of your bagpipe. Here Willie McCallum explains that he knows right from the beginning where a reed will sit, and has a fixed idea from his own playing experience where to pitch himself:

SM: How do you arrive at a reasonable pitch to play at?

WM: Eh, I’ve kind of got an idea of what pitch sounds good to me, and there are a few people who play a high pitch there are two or three who play that high pitch, and I don’t like it. I think there’s a loss of harmonics somehow in the drones, when the pitch is too sharp. I’ve just got used to this pitch that I want. And I can gauge when I’m setting up a new reed, more or less where my drones are tuning and I’ve got what I think’s probably an optimum place for them to tune. I think with the plastic drone reeds it’s probably easier because there’s not a lot of movement between, sort of their upper tuning and their lower tuning. There’s not a big difference, so if I’m setting up a chanter reed, and by ear I can tell by that, there’s that tolerance in the drones, if it’s around that ballpark then it’s fine. (Discussions Willie McCallum: 27/02/2002)
Willie states that through experience he has learned when setting up a new reed, what pitch he generally wants that reed to sound at. He has a mental ideal which he looks for whenever he is starting to blow-in a new reed. The discussion pipers are all internationally respected solo competitors and consistently (over years) have accurately tuned bagpipes at the desired pitch they have arrived at through experience; they all have a highly developed sense of their overall pitch relative to the current performer community. The question of what is 'believable' pitch is a concept that directly relates to group consensus. In setting up their pipes these pipers are aware of others’ pitches and they make sure that they are not too sharp or flat. Therefore, unlike some instruments that are tuned for ensemble purposes to concert pitch, the bagpipes operate within a believable range of pitches, which is continually being redefined by pipers themselves. The use of adjectives like 'reasonable' or 'believable' to describe pitch, demonstrates this community consensus, and is one of the aesthetic factors pipers define and control, themselves.

Chris Armstrong is aware that he is pitched sharper than other pipers, and thinks this contributes to his 'brighter' sound. Chris feels that sharp refers to pitch, however, 'bright' is usually a timbre descriptor, and refers to a full sound, with "good projection, and a high quality of sound". Chris feels that having a bright sound is part of his identity as a player, and indeed he is known for playing a sharp and bright bagpipe by the competitive community.
The term 'bright' is used as an opposing timbre definition to 'dull', and refers to a greater or lesser amount of high upper partials in the sound of the pipes. I realised, during the course of this study, that in the mind of pipers, pitch, timbre and intonation are all understood, albeit often described in piper's terms, rather than western classical terms. However, they are very rarely separated and for most pipers, an evaluation of one cannot occur without value-judgements about the others also.

This conceptual union of pitch, intonation and timbre, is an important tenet of competitive piping. Pipers consider a performance, and the sound as one package, to be evaluated as a whole. Chris Armstrong feels that generally the sharper the pitch the brighter the sound. Overall, the harmonics of his chanter are 'brighter' relative to the average solo competing piper. For example, at the Donald MacLeod memorial competition 2003, Chris had to flatten off slightly (not as much as the year before), but he had to flatten his overall pitch, which proved that he was pitched slightly above the average pitch within the elite competitors. He did this in order to play with the other pipers at the recital in the evening. In 2002 he was pitched considerably higher than most people. He has since flattened his chanter because he felt that this pitch was "heading towards being extreme" (Discussions Chris Armstrong: 22/04/2003). Not only does Chris play higher than other pipers because he feels that this makes his playing more energetic, it gives him an energy, it also "sounds right", as he says, "it lifts my playing". In order to
maintain this aesthetic, he asked for a higher pitched chanter this year when he got a set of new pipes because it meant he did not have to gouge the new chanter or sink reeds so far into the throat of the chanter; leading to a drop in the quality of sound. By having a sharper chanter made, he could maintain his chosen sound, without any drop in the quality of sound.

Roddy MacLeod feels that through conditioning you arrive at a sense of what is current. He knows what sound he is looking for and recognises where the drones normally tune. Also he made the point that the chanter limits how high you can go. Essentially, the instrument limits the pitch range available (unless of course you have a specially made chanter). In setting up his personal pitch, he knows which reeds will be too flat or sharp and Roddy feels that his pitch has not changed very much since the early 1980s (Discussions Roddy MacLeod 21/01/03). Back then, his pitch was higher than the norm and is now in the middle relative to the piping community.

In carrying out the discussions for this research, I became aware of the relationship between competition and pitch, or broadly speaking - function on sound. Having the experience of playing with many other non-piper musicians, I knew that there are many pipers who have an entirely different performance function and therefore conception of pitch. Finlay MacDonald is an expert piper who specialises in playing with other musicians. Finlay plays exclusively in B flat and feels that this is an acceptable pitch for the bagpipe.
chanter to play at and he enjoys the sound of playing at that pitch 
(Discussions Finlay MacDonald 09/01/03). In playing with other musicians, 
he feels that many pipers do not have the requisite knowledge of standard 
tunings of other diatonically pitched instruments and that tuning the pipes 
higher than B flat is 'unsociable' in that other musicians find it easier to play 
along with Bb, and expect the pipes to be tuned to that pitch. Finlay went 
further and suggested that Bb is the 'natural' pitch for pipes and is roughly 
where they sound most comfortable. However, he is aware that the majority 
of pipers, whether in pipe bands or solo are now considerably sharper than 
Bb. In choosing reeds he has to pick flatter ones and has them made with 
longer blades in order to achieve this. He also suggested that, the higher the 
pitch of the chanter, the more muffled the timbre, and he feels that the 
sharper the pitch the less definition there is between notes.

I also have experience of playing with orchestras, pianists, guitarists 
and many other musicians in a professional setting: My experience is that one 
must pitch the bagpipe at concert pitch Bb in these situations, particularly 
when playing with fixed pitch instruments. This alters both pitch and timbre 
of the chanter. When playing at this lower pitch there is greater volume from 
all the notes of the scale, and in particular the top hand notes (E, F, hG, hA). 
This is perhaps indicated in my discussion above showing Chris Armstrong's 
weak low-range harmonics because he is pitched considerably higher. Most 
competitors play low A of the chanter about 20-30 cents lower than concert
pitch B, although obviously this differs from player to player. These differing attitudes towards pitch demonstrate how the function directly affects pitch.

In chapter 4, I explore how the individual identity of pipers is expressed within their playing and aesthetic judgments about tunes. However, throughout the research on sound I came to realise that a piper’s identity is achieved not only in their playing style, but in their sound.

Pipers then, combine an individual sound with their individual interpretation of traditional tunes to provide a unique performance. The sound of the bagpipe is crucial to the identity formation and maintenance of the player. These discussions again emphasised to me the extensive thought and preparation that goes in to achieving the sound, the specificity of that aesthetic, and the inseparability of pitch, timbre and intonation to pipers. For pipers, there are perhaps more variables that can colour their individual sound than there are for players of many other woodwind instruments. Their choices of bag, reeds, materials, drone and chanter types, moisture control, blowing technique and blowing pressure all colour the overall sound and when combined with aesthetic choices about pitch, intonation and timbre result in individual pipers achieving characteristic sounds. Sound in performance is more than a question of ability to play in tune on a pleasant instrument; sound is a unique part of a piper’s identity. Function, identity and reliability are the fundamental factors for competition pipers.
Chapter Three

The Modal Complex
Methodology in Melodic Analysis

...musicians seem always to agree more upon what one should do in composition and performance than on ways of conceptualising and justifying what they have done. Acknowledging this characteristic, we may be content to describe music precisely as the culture does, or would; or we could use the culture’s own approach to go further, establishing a new system of description that nevertheless is derived from and continues to be compatible with what would be done by the informants. (Nettl 1983:97)

The purpose of this Chapter is to explain through analysis the modal complex of 2/4 competition marches. I first noticed particular musical similarities between many tunes as I was learning my repertoire. This led me to questions about how tunes were constructed. As research progressed, and I read about other music cultures, I realised that there was a musical grammar underpinning the tunes I was studying. This grammar is the subject of this Chapter, and within that grammar I have chosen motifs as the most significant modal device. Pipers do not talk about motifs or structural tones, but in the spirit of the quote above, I hope that this analysis is useful to pipers. Pipe music is a rich resource for many musicians: I hope the discovery and analysis of the modal complex marks a step forward in the understanding of a unique Scottish musical tradition.
Motivic analysis

In this research, mode is primarily defined by motif and the importance of mode is as an analytical tool for understanding the character of traditional music. I emphasise here that the most significant feature of a mode in bagpipe music is the motif. The repetitious and specific use of motifs are what makes bagpipe music sound like bagpipe music. Therefore motivic analysis can be used to discover the grammar or, as I have termed it, modal complex upon which pipe music is based.¹ This modal complex is learnt by osmosis as pipers master repertoire over years and is the subconscious basis for new tune composition. This point is explored further in Chapter four.

Pipers understand pipe tunes in their entirety, with all the features of a tune considered simultaneously. In my analysis, I have examined each element individually, and have come to an understanding of the properties of pipe tunes that makes explicit the subconscious knowledge I understand as a performer.² I understand the repertoire of pipe marches as a piper and as an analyst, and it should be stressed that these are complementary understandings. It is my role as a player-analyst, combined with recent

¹ The term modal complex is explained further below.
² This can potentially pose problems for the researcher who is dividing the music into units not discussed by performers, and possibly imposing a conceptual idea irrelevant to performers. This problem was highlighted by Nettl (1972) in his motivic analysis of the Persian radif. I believe that the analysis helps both pipers and non-pipers who are interested in the grammar of the music, by providing another viewpoint with which to understand the music.
Ethnomusicological scholarship on mode, that has led to the prioritising of motif over scale-type in modal analysis. In addition to understanding that a tune feels 'strong' and suitable for a pipe band, I can now explain it in terms of its mode. A good band tune might employ emphatic band motifs, arpeggiac melody in the later parts or using an A/G mode that emphasises the consonance and dissonance of the melody against the drone tonic.

I define the motif in 2/4 marches as at least one crotchet's worth, however that crotchet may be divided into 2, 3 or 4 notes. A single crotchet cannot be a motif by definition. The maximum number of notes per beat is four in the canon of 2/4 pipe marches. In fact this is generally true of Scottish traditional music, the smallest division usually being demi-semi-quavers. One exception to this is the triplets found in part two, bar 4 of Dugald MacColl's *Farewell to France*, a tune more popular with pipe bands. As a general rule, triplets in 2/4 pipe marches are only acceptable in pipe bands and not in solo competition.

It occurred to me that perhaps 2/4 pipe marches are in fact entirely made up of melodic motifs and combinations thereof. However, this statement would imply that composition is then simply a matter of rearranging the traditional motifs in a fresh way, rather than actually composing new melodic material. This is not true: when composing, the composer is inventing new music and usually that new music is composed within the framework of the modal complex, and perhaps utilises more or less
of that complex, making tunes sound more or less traditional. Aesthetic judgements concerning tunes are often made, based upon their modal complex. In this Chapter I devote a section to 'band' tunes; this is based upon discussion evidence where it emerged that there are certain characteristics that make some tunes more suitable for pipe bands than soloists. Chapter 4 deals with the aesthetic notions of heaviness and competition-suitability of the repertoire, based upon concepts developed in this Chapter. In the concluding Chapter I suggest that the 'traditionality' of a composition is something that can in fact be quantified by a close examination of the modal complex.

'Mode' and 'Modal Complex'

Mode is a term used by many scholars, translating into English a plethora of musical organisational and classification systems from widely differing cultures. Mode has been employed by English language scholars and ethnographers when discussing topics ranging from mediaeval church mode theory, Japanese chōsī, Indian rāga to Anglo-American folksong. (see Porter 2000-2005 and Powers and Widdess 2000-2005). Indeed, there is even a tradition of modal composition in western art music from Bach to Chopin, List, Bartok, Janáček, Debussy, through to Górecki, Pärt and Tavener. All have drawn on modal scales and indigenous modal formulae for their compositions and arrangements (Porter 2000-2005).
In using the phrase ‘modal complex’ I hope to be able to bypass the considerable semantic confusion outlined below, surrounding the term mode, and to relate the musical grammar of bagpipe to other musical traditions that employ formulaic musical conventions that developed aurally. In particular I wish to avoid the use of the word mode as indicating merely a scale-type. In the modal complex the most significant organising concepts are the motifs and rhythm-contour motifs (explained below). This relates the modal complex to the work of the Anglo-American folksong scholars, in particular Anne-Dhu Shapiro’s analysis of tune families. She states on a major study of Anglo-American folksong that:

Modal nomenclature is largely irrelevant to scholarly research on folk-tunes...modality is the most variable element of a tune’s identity...The most useful concept is melodic formulae. ...the discovery of a few tonal shapes basic to Anglo-American song could then be termed the ‘modes’ of our oral tradition. These would not really correspond to the modes of Sharp/ Bronson because their outlines would be more relevant to actual folk-tunes, than a series of notes arranged in a scale. (Shapiro 1975:Appendix 2)

This statement (amongst others, e.g. see Cadzen 1971) moved thinking on mode away from the scale-type, which was fundamental before her study and puts the motif (melodic formula) firmly within the rubric of a mode. It is this
idea that leads me to use the adjective modal in describing the complex grammar of pipe music.

**Perspectives on 'Mode'**

From the turn of the twentieth century, the term mode became associated with the study of Anglo-American Folksong. During the twentieth century the conception of pentatonic and hexatonic scales changed. Early on these scales were seen as gapped scales; scales that were lacking the extra notes that would make them normal seven-note scales. They were viewed as primitive and were indications of a supposedly evolutionary development from a five to six to a seven note scale, which is the basis of the major and minor scales in much of western music. Much of the early scholarship displays this evolutionary thesis:

To his discussion of Modulation...should be added his opinion that the "indeterminate" notes (e.g. the third of the scale, which varies from major to minor, or is sometimes sung as a neutral third) may be indications of the transition stage from the five-note to the seven-note scale, in which the medial notes required to complete the scale are introduced with some uncertainty. (Karpeles 1936:preface)

The scholarship of mode as applied to British folksong, began at the turn of the twentieth century with the work of Gilchrist (1911) and Jacques (1899). Gilchrist made a study of Gaelic songs, finding most to be pentatonic and
making a clear distinction between Lowland and Highland song traditions. She equates Lowland music with English traditional music based on a seven-note scale. She states that pentatonic and hexatonic scales are evidence of a musical culture developing towards a heptatonic scale:

It is in the later bridging of the gaps by filling in the missing notes that the Scottish and Irish modes appear to me to become differentiated...[typical of] the pentatonic scale on its way towards a seven-note system. (Gilchrist 1911:151-153)

The beginnings of widespread confusion about the bagpipe scale can be seen in this article where she makes the claim that the instrument has little influence on Gaelic folk-song and that the scale is probably based on “...an ancient seven-note system of eastern origin”. (Gilchrist 1911:153) Since then Allan MacDonald has shown links between Gaelic song and Piobaireachd, resulting from a vibrant tradition where melodies flowed freely between pipers and singers (MacDonald 1996).

In common with other writers at the time, Gilchrist viewed a mode as merely a scale-type and she uses these terms interchangeably in her “Note on the modal system of Gaelic tunes” (1911). She suggested a hypothetical pitch set, from which Scottish pentatonic scales could be constructed. She gives the following notes as the basis of Gaelic song, upon which five different pentatonic scales can be constructed. She takes each note in turn as the tonic,
with the resulting five scales made up of different arrangements of tones and semitones:

![Musical notation showing a scale with notes marked as No 3rd. and No 7th.](from Gilchrist 1911:150)

These early writings are the beginning of a scholarly approach to folk music and could be seen as one “outgrowth of revived interest in early music” (Shapiro 1975:Appendix 2, p.1).

Cecil Sharp was also collecting folk-song in the early twentieth century and he had some very definite ideas on mode, which he published in his book *English Folk Songs: Some Conclusions* in 1907. Sharp collected in many areas, and founded in 1911 the English Folk Dance Society; indeed he collected with Maud Karpeles in the Appalachian Mountains in the southern United States (Boyes 2004). Karpeles went on to defend Sharp’s work and edit his books, producing a biography; later she was criticised as being “too inflexible” regarding Sharp’s legacy (Boyes 2004). There was (and still is) a huge canon of traditional music and these early scholars were trying to make sense of it and elevate its status in society. The ready-made system of church-modes gave them a preformed nomenclature and established theory with which to explain the musical organisation of this music. It also lent a welcome air of
institutional authority to their work at the start of a field of scholarship which had no academic precedents. Unlike other writers, Cecil Sharp did not try to make any connections between folk-song and the mediaeval modes (Shapiro 1975: Appendix 2, p.5).

It is not effective to analyse pipe tunes in terms of their church mode attributes. Traditional tunes do not fit completely into the church mode theory and there are problems with cyclical tunes, which do not end on the tonic. Collinson (1966) explores this flaw by applying church mode theory to traditional music and pointing out that the classification by church mode (for example Mixolydian, Aeolian, Locrian etc.) does not account for the melody as a whole. He shows this with his example of the Souters of Selkirk where he classifies the melody as Locrian but says that the majority of the melody is actually in C major. Therefore the final cadence feels as though it finishes on the seventh degree of the scale. This is an example of a cyclical tune and demonstrates the type of contradictions that arise when traditional music is classified by church mode. The ‘Locrian’ classification does not have any relevance to the conceptualisation of the tune by musicians as there are many cyclical tunes in Scottish music that are designed to be repeated or joined to other tunes. No traditional musician I have met thinks in terms of church mode attributes, furthermore, many do not even classify tunes according to their key. In my experience, today’s traditional musicians primarily group
tunes through genre (e.g. jigs, marches, reels etc.). Because more complex musical attributes are not verbally articulated, it makes it particularly difficult to understand how we (traditional musicians) conceptualise tunes; however I believe that in the spirit of the quote of Bruno Nettl (see p.119) the motivic analysis is more sympathetic to the performance practice of traditional music than for example, church modes.

Like Gilchrist, Collinson saw pentatonic scales as 'missing' two notes, like a primitive form of a major/minor scale, and he bases his hexatonic scales on these pentatonic scales by "filling-in any intermediate note in either of the two gaps" (Collinson 1966:10). It is easy to apply modern thinking and concepts when criticising past work and Collinson must be credited with having the farsightedness to demonstrate these problems of mode theory in Scottish music.

The modal complex is a phrase that I have used throughout this thesis, however perhaps another term for this conglomerate of concepts of motif, pitch, timbre, pitch sets, hierarchies, that contribute to the overall effect of the music would be taste. Joseph MacDonald (1760) coined the term in relation to bagpipe music in his Compleat Theory of the Scots Highland Bagpipe (c.1760). In this, "the first attempt by a piper to record pipe music in writing", (Cannon, 1994:preface) Joseph MacDonald describes a section on 'Keys' in which he

describes and gives examples of five different 'Tastes' or 'Style', which can be used in ceòl mór. He uses the word taste and key to mean two different things. He was acquainted with eighteenth century western art music theory and used key in this context. He used the word taste to imply something similar to mode and recognises that within the same pitch set, different hierarchies result in a different taste:

"This [referring to Rory MacLeod’s Lament] is the beginning [sic] of a very soft Lament, dedicated to the Chief of the MacCleods [sic] of Sky [sic]. It Touches upon G in the Ground frequently, & in the runnings the force of the style lies upon the Lowest G: So that we may Say it is a different Species of that Key. This relates to the following Taste, which lays its whole stress upon G and therefore is very different." (Joseph MacDonald in Cannon 1994:71)

The example above is one of Joseph’s pitch sets for the various tastes, this one called, “a species of G Sharp” (taken to mean G major in eighteenth century parlance). In these pitch sets Joseph does not give the notes in ascending or descending order, but appears to show the pitch sets in order of hierarchy. Although he makes no mention of this concept, it is clear that to

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4 Cannon (1994:67-8)
Joseph MacDonald, the word taste implied more than just a pitch set; it had hierarchical implications. He associates several different emotional connotations with the various tastes, such as "Sweetness of taste...Lamentable...peculiar taste...boldness" (1994:69-73). Clearly, Joseph MacDonald was making the direct connection between modal content and the effect it produces.

Gilchrist, Karpeles and Bertrand Bronson borrowed from church mode theory and focussed it upon song. Little research has ever been carried out into the instrumental traditions of Britain. Indeed, the canon of scholarship of mode as applied to Scottish traditional instrumental music is almost nonexistent, but there has been one valuable study by Buisman (1995), on the structure of ceòl mór. He suggests that the drones are important to ceòl mór (1992:3) and that they are:

"...unrelated to the key, but also independent of the compass of the particular scale that specifies the mode or "taste" of the melody."

(Buisman 1992:4)

He does recognise that some tunes have a different tonic than the drone A (although he suggests that the tonic is a concept that is largely irrelevant to ceòl mór (1992:4)) and that the drones are sometimes totally separate to the 'tonality' of the piece. Buisman suggests that the drone "adds something to the tonality of a composition independently of its melody." (1992:4), he identifies
the ‘specific scale’ as the most obvious element in a mode, and makes much of the melodic compass in ceòl mór. In this analysis, the scalar attributes of pipe music are inescapably linked to the drone: not only in terms of chanter intonation, but also in terms of composition.

In his examination of tonality in ceòl mór, Buisman largely concentrates upon the distribution of individual notes throughout the chronological progression of a piobaireachd. In ceòl beag, which is the repertoire analysed here, the ‘melodic economy’, as suggested in Buisman (1992) and refined by him (1995) (i.e. the gradual introduction of higher notes of the bagpipe chanter throughout the progression of the tune) is not applicable, because all the tunes in the canon of marches presented here utilise their full pitch set from the beginning to the end of the tune. Perhaps Buisman’s theory of “cumulative scalar structure” (1992:5-6) or “melodic economy” (1995:21) is only relevant to ceòl mór.5

Buisman uses the term ‘tonality’ and he defines it as, “...a coherent system that comprises those properties of music that serve to hold together the tone structure of melody so that it is possible to relate one passage to another.” He also uses the term ‘taste’ (after Joseph MacDonald) in his discussion of tonality, and makes no distinction between this and ‘tonality’. In this study I have chosen the phrase ‘modal complex’ to denote the complex

5 There are however, patterns of range in ceòl beag, see below.
of concepts that form the underlying grammar of pipe music. I suggest, based upon Buisman's definition of 'tonality' and his interchangeable use of 'taste' with that term; that he is effectively discussing the same concept that is the subject of this Chapter. Whereas Buisman's examination of ceòl mór focussed upon scalar attributes, this study principally focuses upon motivic content. Furthermore, it is my bias that modality is preferable to tonality because I understand tonality as being more closely linked to western music, and modality as being more closely aligned to theories of non-western music. In understanding the 'taste' of ceòl mór, analysis of the modal complex (as outlined here) and in particular the use of motifs and pitch hierarchies, would result in an understanding more appropriate to this music-culture.

Even in the mid-twentieth century, church-mode theory was being distorted to try and provide a classificatory system for Anglo-American folksong. Bertrand Bronson developed a star-shaped diagram to account and explain tune variants, and how their tonality shifts. Cadzen (1971), in his scathing condemnation of mid/early-twentieth century folksong scholars bemoans the use of church-mode theory:

...Bronson places modes differing by one term in adjacent positions in a star-shaped diagram...Yet the many instances in which tunes

6 Here I use Joseph MacDonald's term 'taste', interchangeably with 'mode', as I believe that his understanding of taste, is really the same as an understanding of the modality of a tune.
straddle more than one arm of the star, not only as between related variants but also within one verse of a single rendering, suggests that looking at stars that lack twinkle may not guide us readily to the harmony of the spheres...

Thus my quarrel is not mainly with this or that difficulty, but with the whole concept that folksong tunes are cast in modes of such historically shaky origin, or that their musical qualities and interrelations can be encompassed or usefully described by first supposing just such a set of pre-existing guidelines.... Historically, the terms do not correctly describe what is known of the ancient Greek musical practice from which they are supposed to derive. Their flagrantly erroneous refurbishing does not fit the medieval plainchant practice for which it was adapted. Their further reinterpretation, by which strictly melodic criteria were forced to appear applicable to the incommensurable procedures of early church polyphony could not and did not measure up to the task. Finally, their eventual revision in present form, designed as an apology for tonal harmonic practice, notoriously does not succeed either in explaining that practice or in justifying the retention of the hypothetical scheme. (Cadzen 1971:58-62)

Cadzen makes a convincing case in this article for the termination of church-mode theory in Anglo-American tune studies. He goes on to suggest that:

...let us begin the examination of tunes and tune families in the framework of the larger systemic structures termed genera, then...observe first whether and how the 3rd is treated as regards major or minor, and proceed to examine the regular or the
fluctuating behaviour of the remaining variables in the formation of melodic motifs and phrases. (1971:70)

What followed the scholars such as Bronson, was the reassessment of the entire concept of mode, and a significant re-examination and acknowledgement of other musical cultures, especially within ethnomusicology. In effect Cadzen's suggestions were taken up, with other ideas in the work of scholars of British, Irish and American traditional music, particularly by Shapiro and Cowdery (1990).

Mode encompasses more than a particular scale-type or pitch set. The work of Harold Powers (1958, 2000-2005), Mantle Hood (1982), Shapiro (1975), Becker (1969), and others has led to a reinvention and expansion of the concept of mode. They created a new perspective on mode, recognising that the motivic (or formulaic) content of music is more appropriate to many cultures than a scalar approach.

Mode has been associated with many different indigenous terms relating to the musical properties/repertories of eastern cultures. These have often been translated into English language as mode. This is problematic as there are dichotomies between what these terms mean in practice. Harold Powers and Ki Mantle Hood explain:

...associations of the European term 'mode' with technical words in Asian musical cultures still farther east are now widely
accepted...The association of such culturally and linguistically
diffused terms as ἔχος (Greek), maqām (Arabic), rāga (Sanskrit),
pathet (Javanese), and chōsi (Japanese) with the much expanded
European concept of mode has naturally led to an almost
unquestioned assumption of some minimal underlying
metacultural or scientific category ‘modality’, to which concepts
and phenomena of specific musical cultures might be referable as
special cases. For example, Mantle Hood, in The Ethnomusicologist
(1971 [1982]), wrote that:

"in considering existing definitions of ‘mode’...We discovered that
there were quite a few in print...[but] none of them could be
applied on an international level. In fact, all of them taken together,
contradictions aside, could not account for Indian raga, Javanese
patet, Persian dastgah, and modal practices of other musical
cultures...After spending four or five months examining modal
practices in various parts of the world, the Seminar was able to
construct a definition...that rests on the assumption that mode
itself is a continuum.

Basic features of Mode seem to include the following: (1) a gapped
scale...; (2) a hierarchy of principal pitches; (3) the usage
of...ornamental pitches; and (4) extra-musical association. (Mantle
Hood in Powers and Widdess 2000-2005)

This statement by Powers, Widdess and Mantle Hood shows that in the
various modal traditions throughout the world there are several factors
beyond scale-type that determine mode. Furthermore, in the original text
Mantle Hood (1971 [1982]) goes on to suggest additional modal traits that have special relevance for the Scottish piping tradition:

...In addition, modal practice might involve the usage of special registers, for example, low, middle, and high; rhythmic requirements...regulation of the quality of sound; special associations with language and/or text; particular requirements in connection with interrelated arts such as dance or puppetry...exposure to the European church modes—considering our present knowledge of the subject affords him little preparation for an objective understanding of mode in other parts of the world. (Hood 1971 [1982])

Diagram 2: In diagram 2 I show my abstraction of Harold Powers and Mantle Hood’s estimation of the worldwide modal entities as visual representation of their position between Tune and Scale, on the kind of continuum that Ki Mantle Hood found useful. It is intended to emphasise the point that these musical traditions shown occupy the ground somewhere between a fixed tune and a fixed scale which are the norms in western music theory.
In many non-western musics, such as Indonesian Gamelan and the Iranian radif, mode often encompasses a thorough analysis of intonation and pitch as well as motivic content. A fundamental issue in Scottish piping is the scale of the chanter, which is often described as a mixolydian scale with a tonic on the note A. This view can be traced to Francis Collinson (1966) who in his *Traditional and National Music of Scotland* states that:

With a further inversion of the seven-note scale we arrive at the Mixolydian Mode:

![Mixolydian Mode](image)

...transposed up one tone, this is the mode in which the scale of the Scottish Highland bagpipe is cast. (Collinson 1966:16)

This does make sense in that the pitch-set shown employs roughly the same scalar divisions as the Highland bagpipe. However it does not take account of the specific intonation of the instrument. The very fact that this is notated in western notation, with a key signature, suggests equal-temperament
amongst other concepts. The bagpipes do not intone in equal-temperament and therefore to describe the scale as mixolydian is flawed. It does give a reasonable description of the scale; however it is another borrowed term that carries semantic baggage. Furthermore, this description does not account for the freedom of pitch that pipers enjoy. There is no fixed absolute pitch for the bagpipe, and as shown in Chapter two, pipers manipulate pitch and intonation to express themselves as individuals.

In conclusion, the concept of mode as applied to traditional music is very wide or narrow depending on the particular author's view of mode. The scholarship so far has tended to concentrate on the song repertoire and very little attention has been focussed on the instrumental repertoire. Much of this scholarship has used conventions of church mode theory and its nomenclature has been widely applied. It is accepted in ethnomusicology that the church mode theory is ill-suited to diverse global musics. What is needed then? Mantle Hood (1971 [1982]) and Shapiro (1975) have suggested that it is the concept of mode that needs to be widened and re-examined. The concept now needs to include the idea of melodic formulae and perhaps be redefined for each specific culture. For Scottish piping, a close examination of the intonation, sound quality, double tonic, pitch sets/hierarchies, structural

7 Interestingly, the temperament of the pipes is beginning to be re-examined, see Thrasher (2002), discussed in the previous Chapter.
tones and melodic motifs, framed by what pipers themselves think about their music, constitutes the modal complex of today's piping tradition. What follows is an examination of the modal complex: the grammar of related concepts that make pipe music sound like pipe music.

Modal Complex defined

Like languages, musical systems are learned subliminally and reproduced without effort. The complex structure underlying both language systems and music systems is apparent only to the analyst...In Burma, it is the modal system which, while seeming to put great restraints upon the artist, actually frees him to practice his art. (Becker 1969:278)

The modal complex in bagpipe music lays out a complex structure that gives composers in an aural tradition (or aurally-developed tradition like piping) the boundaries with which to produce their own tunes. The modal complex discussed here is linked to competition as context and the various structures operating within this grammar are affected by that context. Just as in Becker's comments above, the complex structure underlying competition bagpipe music is apparent to the analyst and this marks out this use of modal analysis from earlier work. Whereas 'mode' has traditionally been used in Anglo-American musicology as a classificatory rubric, I see mode as an analytical
tool for the discovery of the complex structures underlying musical performance. The analyst's task is to use an approach derived from the music-culture to explain the pre-existing structures to others. The tools of modal analysis will be different in differing traditions, depending upon the particular tradition. I have tailored and devised a modal complex that is suited to competition bagpipe music and it includes:

1. a pitch set and hierarchy
2. patterns of range
3. a phrasing structure
4. structural or diagnostic tones
5. double-tonic (in some tunes)
6. motifs
7. rhythm-contour motifs

Further melodic concepts could be added for other music-cultures. For example the bagpipe is a continuously sounding instrument, therefore breathing is not relevant, whereas it may be in a vocal modal complex. The following diagram shows the relationship of modes to the greater modal complex. Whilst both individual modes, and the overall modal complex have the same attributes (pitch sets, hierarchies, structural tones, melodic motifs, double tonic structures), the modal complex is the underlying musical grammar of a cohesive repertoire. An individual mode is a specific musical system that relates a smaller number of tunes in a repertoire because of their
more specific melodic characteristics. Furthermore, the rhythm-contour motifs are really a feature of the larger modal complex because they are realised at different pitches in different modes. To extend the language metaphor, if the modal complex is the underlying grammar, then individual modes equate to interrelated dialects.

Diagram 3: Showing the relationship of the modal complex to individual modes.

![Diagram 3](image)

1. Pitch Sets/ hierarchies

Bagpipe music employs a limited number of pitch sets. Many tunes use a single pitch set for the entire tune. Some tunes use two pitch sets that are played against each other; these are sometimes labelled ‘double-tonic’ or ‘bi-tonal’ (Buisman 1992:2). Double-tonic tunes use primary and subsidiary (or secondary) pitch sets. The two pitch sets are centred around two different tonal-centres, usually one tone apart, for example, A and G. The pitch sets of most marches in the competition canon are pentatonic or hexatonic, although three of the 64 tunes in the canon are genuinely heptatonic.
The pitch *set* simply shows the actual notes used in the tune whereas a pitch *hierarchy* defines those notes in order of importance. Therefore the pitch hierarchy relates to the structural tones because the more important a note is to the structure of the tune, the higher up the hierarchy it will be.

The establishment of the pitch hierarchy of each tune involved more than simply counting notes and their relative durations. This analysis involved the use of my own musical experience and judgment in order to determine the specific hierarchy of each tune. The importance of the pitch hierarchy is not as significant to mode as the motivic usage in a tune, because the hierarchies only offer an abstract reduction of a tune, useful for categorisation, but not telling us much about the music. However, analysis of pitch hierarchies of related tunes exposes the compositional genius behind the repertoire because it shows that many tunes can be in the same mode and share a body of core motifs, yet at the same time be different in their musical nature through the emphasis of different notes in a common pitch set.

My method for arriving at a specific pitch hierarchy for a tune (see the canon of tunes p198 for the full list) was firstly to play through the tune and feel which notes were significant. I then combined this with a visual analysis of notes appearing in significant places such as the beginning of each part, the ends of phrases etc. The result of this process shows the individual hierarchy specific to each tune. So for example, in the tune *The 74th Highlanders Farewell to Edinburgh* (see Appendix 4), the tune is an A pentatonic tune although the
tune uses seven notes in total. In this tune I suggest a hierarchy of ABCEF(DG), where A is the most important note and F the least significant in the hierarchy. The D and G notes are shown in brackets because they are only ever used as insignificant passing notes and do not form part of the pitch hierarchy of this tune. Quite a different pitch hierarchy can be seen in the same mode, in *The Stirlingshire Militia*. In this tune I find the hierarchy to be more dominated by the note E and the hierarchy therefore to be ABECF(G).

Although both tunes are firmly in the A pentatonic mode, they are quite different tunes that emphasise different notes and motifs throughout highlighting the genius of the individual composers (W. MacKinnon and Hugh MacKay respectively). They crafted two excellent melodies out of the same basic materials yet imbued them with quite different characters. Further examples can be seen in different modes, for example, the pitch hierarchy of *The Abercairney Highlanders* is ACEF(BD) & GBD(AC), contrasted with *Angus Campbell’s Farewell to Stirling* ACEB(DF) & GBD(EA), both tunes being in the A/G mode.

Analysis of the entire canon of tunes shows that hierarchies are by no means concrete in each mode. It is the lesser notes of the hierarchy that are variable, while the more central notes of each are always present. In the canon of tunes, I have identified nine different modes with different pitch sets: A pentatonic, A hexatonic, A heptatonic, A minor mode, A/G mode, A/G heptatonic, B/A mode, D/A mode and E minor mode. I define these as modes.
because it is not simply their pitch sets that distinguish between them (N.B. the pitch hierarchies in each mode are not concrete, but the pitch sets are): All nine of these modes have a different character that results from the variable use of differing motifs. Certainly, these modes are easily distinguished by the different pitch sets they use, but pitch sets are an abstraction that has little meaning for the player. The player-analyst recognises that the essential personality of a tune lies in its motivic usage, because motifs emerge from the fingers; whereas the pitch hierarchy results from a visual analysis.

2. Patterns of range

All the pipers included in my research agree that each part of a standard competition tune, usual length 4 parts (sometimes 6 or even 8), involve general shifts in the range (melodic compass) of the chanter. During the interviews I asked whether the pipers had noticed any particular patterns in pipe music. All of the pipers specifically mentioned the range patterns in the tunes.

Angus MacColl: Aye, usually you’re on the bottom-hand for the first part, second part you’re up on the top, third back down and fourth up again, that kind of thing you mean? (Angus MacColl discussions: 15/02/2002)

Willie McCallum had this to say about patterns in the tunes:
WM: I think well marches anyway I think they tend to follow a pattern where the first and the third parts, seem, tend to be bottom hand, stuff and the third one’s usually sort of a more complicated version of the first and the same with the second and the fourth they tend to be more eh, they go up to the top-hand a bit more. I think you could say that about most 2/4 marches you know there’s nothing I’ve noticed that nobody else hasn’t noticed eh, I think with strathspeys, you could say the same thing with them.

SM: Same set-up again, bottom-hand first and third?

WM: Aye, maybe, not so defined as marches but and then I think with reels, they’re a wee bit of a mixed bag. You could probably use the same principles with most marches, strathspeys, but reels I think are a mixed bag, in terms of the way they are set-up, the scale they’re in, and probably just the style of them if you take things like The Smith [of Chilliechasie] or The Sheepwife, they’re fairly strong pulse in these and then you go away to something like The traditional reel you know you’ve got a big spectrum of style there, because you would play it rounder than you would play The Sheepwife, so it’s not really as easy to get patterns out of them you know, eh, I quite like a bit of both, I would say I don’t go for all the heavy ones, depends on the melody more with reels, I like the rhythm, because you know I play John McKechnie’s Big Reel and it’s a big heavy tune and quite a strongly pointed tune, and then I quite like Fiona MacLeod, which is a wee bit more sort of abstract, it’s not,
you couldn't point it the same way as you'd point McKechnie's Big Reel.

SM: No, it's a bit sort of bouncier, running on.

WM: Aye, it is so I like them both and that kind of

SM: They're both great tunes.

WM: Yeah, but you have to play them differently, hard to play one next to the other. (Discussions Willie McCallum 27/02/2002)

Discussion evidence and analysis of the range of the parts in 2/4 marches shows this general pattern:

<table>
<thead>
<tr>
<th>Part</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Central to low compass on the chanter</td>
</tr>
<tr>
<td>2</td>
<td>Higher compass, involving more top-hand work</td>
</tr>
<tr>
<td>3</td>
<td>Lower compass, involving more bottom-hand work</td>
</tr>
<tr>
<td>4</td>
<td>Higher compass, involving more top-hand work</td>
</tr>
</tbody>
</table>
This demonstrates a melodic relationship between parts one and three, and between parts two and four. This relationship is explored further in this Chapter in terms of the structural tones and the motivic relationship between parts. Patterns of range, when combined with the phrasing structure, provide a distinctive part of the modal complex instantly recognisable to pipers.

3. **Phrasing structure**

This term refers to the overall structure of a particular tune, which is based on the relationship of each phrase to the drone tonic. The standard phrase-structure in each part is: a b a c, where each lower case letter denotes a two-bar phrase. Within the overall structure of the tune, each part will tend to follow this pattern with small variations. This is combined with the patterns of range, to give a more specific overall structural picture. In double-tonic tunes, the phrasing-structure alternates between tonal centres, and it is this that aids the question and answer phrasing, so important to pipe tunes. The double tonic is one method of providing a structure to a tune based upon question and answer phrasing, and its importance to the individual piper's expression of identity is explored more fully in Chapter 4.

4. **Structural/ Diagnostic tones**

The identification of nuclear tones is crucial to the definition of mode and scale. (Tokita:1996:15)
Observation of hundreds of pipe tunes reveals certain notes that form the underlying melodic structure of a tune, these notes are called structural (or diagnostic) tones. They have been employed in various modal studies to look at underlying tune structures (for example see Dujunco 2002; Tokita 1996; 'framework tones' - Sen and Haihong 1992; Cowdery 1990). I became interested in these structural tones after observing that the majority of marches use a B note as the important note at the end of phrase b, i.e. bar 4 of any given part. Crucially, the importance of this structural tone is that it provides the necessary tension against the drone tonic, to lead the tune back into phrase a. The note B (circled) is quite dissonant against the drone tonic, and thus provides the necessary tension to lead back into the A-centred phrase a. Here is a typical example of the use of a B structural tone at the end of bar 4 in the first part of P/M John Stewart:

P/M John Stewart

\[\text{[Music notation image]}\]

8 When competition pipers perform they always begin with a selection of 'tuning phrases' which are small groups of notes and ornaments that serve to give the pipes time to warm-up and check the tuning of the drones against the chanter. These tuning phrases are significant to mode, because the player usually concentrates on displaying the modal structural tones and possibly motifs of the mode of the tune(s) they are about to play.
37 tunes in the total canon of 64, use B as the structural tone at bar 4. Of these 37 tunes, only 3 are in the A/G mode, the remaining 34 are all A pentatonic or hexatonic mode. The 18 A/G mode tunes use structural tones at bar four that are part of the subsidiary pitch set. They use G, B, D or E notes as these are part of phrase b. The A minor mode tunes use E or G as structural tones.

Because structural tones form the underlying framework that the rest of the tune is hung on; they are similar to Porter's (1967:242) more sparsely distributed "cadential/tension relationships". Porter's 'cadential/tension relationships' "...are essentially connected to the tension variation..." (op cit) between the parts. In other words, he recognises in these relationships of important notes, significant correlations between different parts of the tune, that provide melodic congruency. In this study, I am interested more in how the structural tones show relationships between tunes, not parts. By extracting the skeleton of the tune, one begins to see correlations between many tunes; such as the common use of a B structural tone at bar 4 demonstrated above. The use of structural tones is a good analytical tool for the understanding of the melodic structure of pipe tunes, as they reflect the horizontal nature of pipe tunes and their composition. The use of western harmony, or any 'vertical' system of analysis tries to fit what is a horizontal conception of melody into a system not designed for traditional music. Traditional tunes should be understood by analysts in the purely melodic
(horizontal) fashion that they were composed. Cannon (1995b) makes this point when describing the analysis of piobaireachd structure:

...Words like "tonic" and "key" suggest developed forms of harmony which are perhaps not appropriate to an essentially melodic music like piobaireachd. Terms like "ground bass" suggest that piobaireachd is drawn from some other music which did indeed feature a varying bass harmony, and historically, we do not know whether this is true or not. (1995b:31)

To demonstrate the use of structural tones as an analytical method, I will use the tune *The Rosshire Volunteers*. Here is the first part:

![The Rosshire Volunteers (first part)](image)

In pipe tunes, the structural tones often fall on the first long note of the beat, although there does not have to be one within every beat, and it may not be the first note of a beat grouping. For example, in *The Rosshire Volunteers* I have extracted what I feel to be the important structural tones from the first part, leaving a skeleton outline thus:

![Structural tones 1st part Rosshire volunteers](image)
By viewing the structural tones of the tune, the relationship between the parts of the tune becomes clear. Here is the third part of *The Rosshire Volunteers*:

\[ \text{The Rosshire Volunteers (third part)} \]

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Taking the structural tones upon which the tune is hung reveals exactly the same skeleton as shown for the first part above. This demonstrates the close relationship between parts 1 and 3 which is common to many tunes, also reflected in their patterns of range.

5. The double-tonic

The double-tonic is a device, where a melodic phrase is played centred around one note and then repeated centred around a note one step away in pitch.\(^9\) Here is a classic example of this concept in the pipe tune *The Drunken Piper*:

---

\(^9\) This term appears to have been coined by a piping friend of Francis Collinson (1966:26).
The Drunken Piper (first part)

This is a clear example of the same phrase in bars 1 and 2 being simply repeated a step down in bars 3 and 4. The double tonic structure refers to the shifting tonal centre and that concept does not imply that it is always the same phrase simply moved up or down a step. Phrase b may be different but focussed around an adjacent tonal centre to phrase a.

John Blacking (1967:179-190) noticed a similar concept in his study of Venda children's songs in South Africa. Venda songs are based on descending scales where the tonic is situated at the top of the scale. Blacking defines a scale as

...a set of tones whose relationship is fixed and from which modes may be derived. (Blacking 1967:166)

He noticed a relationship of tonal tension based on physical tension, where there is a shifting between the tonic ('phala') and the last tone at the bottom of the mode ('thakhula').

Although phala is the tone-centre, thakhula is stressed more than any other tone, both by accentuation and by the fact that it is played for the duration of a whole beat. It is not really a point of relaxation, however, and it does not function simply as the final
tone of a melody. It must lead on to the tone-centre and to a new phrase: it 'lifts' the melody back on to phala. (Blacking 1967:180)

Research on the concept of double tonics in the canon of piping scholarship comes from Frans Buisman (1992, 1995), Roderick Cannon (1972, 1995b), R.L.C. Lorimer (1962, 1964), Peter Cooke (1976) and John M. Ward (1990). The majority of these articles focus upon the piobaireachd repertoire and there have been no studies specifically focused upon Scottish ceòl beag (see Ward 1990 and Cannon 1972 for English bagpipe music research). Ward (1990) in his historical study of the Lancashire hornpipe form suggests that the double-tonic structure is derived from the harmonic implications where the performer (either a fiddler or piper) would be thinking of the harmony whilst using repetition and variation to fill out the variations of a hornpipe (1990:147). My research emphasises the horizontal nature of bagpipe music where harmony in the conventional sense has never been part of the piper's conceptual world.

Buisman (1992) recognises that 'bitonality' exists in Piobaireachd. He also explains his classification of categories of melodic relationships as he distinguishes them in piobaireachd. He suggests the concept of 'melodic economy' where because of the limited scale, piobaireachds limit the notes used and gradually introduce notes higher up the scale as the tune goes on. This is a similar idea to the patterns of range in ceòl beag, but in marches, the progression is defined by part rather than a gradual progression throughout
the tune. Buisman recognises categories of contrast and correlation as core concepts in the construction of the horizontal aspects of piobaireachd melody. By contrast he refers to the contrasting of two pitches usually one step apart. This is similar to the double-tonic found in light music. In light music the tendency is for the melody to be simply transposed by one tone, whereas in Piobaireachd the notes are used as contrasting tone-centres, without the melody being directly shifted.

Buisman's correlation is similar, but is the correlation of two notes with strong harmonic links. This is not suited to pipe music in the sense that the term 'harmonic' suggests a vertical conception of the tune. More appropriate would be correlation as discussed through the relationship of each note to the drone tonic. There is a vertical element to pipe music that resides in the relationship of each note to the drone tonic, however it is important for analysis to recognise the horizontal nature of pipe tunes. The drone acts as a magnetic force in melody construction, the tune progresses with time, and during the time taken to play the tune there is a continual relationship with the drone tonic of A. This controls how the tune can develop, by forcing it to firstly show consonance (relaxation) and then move through a period of dissonance (tension) before restating the consonance and dissonance, and then resolving.

This continual relationship to the drone tonic has I believe controlled the horizontal development of pipe tunes. In terms of analysis, the horizontal
development of the tune is fundamental, because that is how pipers conceive of their music. However that horizontal development is heard in constant and varying degrees of consonance to the drone tonic. That is why for example, tunes overridingly resolve to the note A; the most consonant with the drone tonic. This also explains the high number of A mode tunes in the canon of marches. The symmetrical length of phrases (the phrasing structure) is related to the development of pipe music as dance music.

Of course not all tunes use A as the tonic, only authentic (in the purely modal sense of the word) tunes, but there are now many examples of plagal tunes that have tonics of D, E or B. Here is an example; in Donald of the Sun, the tonic of D is contrasted with the note E to give relaxation and tension in the melody.

Donald of the Sun (first part)  
arr. Duncan Johnstone

This example and other tunes (not in the A or A/G modes) demonstrate that the double-tonic can function in different modes.
In the canon of 2/4 marches, the most common double-tonic tunes are A/G mode. This could be called ‘A against G mode’, because it is these two notes that the phrases are centred around. A agrees more strongly with the drones than G, approximately a tone below. Allan Thrasher (2002:16) uses the term sub-tonic to describe the note G. This is important because it reflects its function as a sub-tonic rather than a leading note. The G of the pipes often acts as a pivotal note that melodic sections are built around. The use of hG as an anacrusic leading note into an A-centred part of a tune is fairly common; yet this role as a passing note, does not undermine its more significant function as a ‘sub-tonic’ in many tunes. The double-tonic structure of the A/G mode is an effective way to construct question and answer phrasing.

6 & 7. Motifs and Rhythm-contour motifs

I make a distinction between a motif and what I have termed a ‘rhythm-contour motif’. The motif is a single melodic formula that has absolute pitch, rhythm and contour, and is used to fulfil certain functions. For example, the falling C B A motif:

However, the rhythm-contour motif has only a specific rhythm and contour and therefore enables us to see the same formulae being used at

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different pitches. It can exist at various pitches, thus making it a more fundamental building block than a motif. This distinction is important because it reveals the same motivic function at different pitches. So for example, the C B A falling motif above could be represented as the falling 3-2-1 motif, where the numbers correspond to scale degrees:

This rhythm contour motif also then accounts for the falling B A G motif which is different from the C B A falling motif, but is in fact the same rhythm contour motif. This rhythm contour motif is the most popular motif in the canon of marches.

Motive is at any one time the smallest part of a piece or section of a piece that, despite change and variation is recognisable as present throughout...More specifically motives consist of intervals and rhythmic patterns combined to produce a shape or contour that once recognised, can be easily remembered. (Schoenberg in Zbikowski 1999:6-8)

Schoenberg regarded the motive as primarily rhythmic and contouric. He felt that the potential connection to other motifs (that the listener can hear), is what defines the motif, i.e. it leads directly to another contour. The motif is similar to basic-level categories of language, in linguistics, because it is the
smallest level at which pipers' musical comprehension begins. Pipers recognise these motifs, how they relate to each other, and their placement in the structure of a tune. The perception of motivic use, lies in their aesthetic evaluation of tunes, discussed in Chapter 4.

Four separate examples of typical motifs in 2/4 marches are shown below:

These all represent the same rhythm-contour motif that fulfils the same function: to emphasise the strong beat and the mode of the tune. These motifs above can all be characterised with one rhythm-contour motif:

The essential feature of this rhythm-contour motif is that it travels from an indeterminate but emphasised higher pitch down through the fifth and third of the A and G centred pitch sets, and back to the fifth. Its emphatic function helps the beat because its descending and rising contour forces the player to accentuate the first note of the motif. Consequently, it is popular with pipe bands who need these 'anchor points' to aid unison playing.
Ornamentation in motifs

All of the motifs dealt with in this thesis employ standardised ornamentation. Every motif generally employs the same standard pieces of ornamentation; this is tied into the ergonomic memory of all pipers who learn these motifs. For example, the rising and falling motif always employs these gracings:

If it did not use these gracings it would feel slightly odd, or wrong to the fingers because pipers have learnt these as ergonomic 'chunks' much like the novice language student will first learn 'a', 'n' and 'd', but only later recognise as one chunk the word 'and'. All the motifs represented throughout are shown with their typical ornamentation. Does the standardised ornamentation help with the memory of the motif, and therefore the tune? I do not deal with the issue of ornamentation in this study because I feel that it is tangential to modal concepts. Furthermore, in the discussions all the pipers agreed that ornamentation in tunes is a subsidiary concern to the

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10 See the literature of psychology for usage of the term 'chunking' in memory, eg. Deutsch (1982).
11 Issues of ornamentation and its development have been comprehensively dealt with by J. Decker Forrest: Ph.D pending RSAMD, Glasgow.
progression of the tune; the movements should not interfere with the tune.\textsuperscript{12}

However, how do we know that ornamentation or indeed the actual melodies that are played by pipers are actually the same as the printed tunes? Or put another way: how book-based is the current piping tradition?

\textsuperscript{12} For further discussion of this topic see Willie McCallum's material on p353 of Chapter 4.
Tune case study: Performance and the Book

My analysis of printed settings\(^\text{13}\) of 2/4 pipe marches relies on my assumption that pipers' performance practice substantially mirrors the printed settings of the tunes. Therefore it is important to explore the use of the printed texts and their relationship to performance practice. Since the end of the nineteenth century, much of the competition repertoire has been standardised through publications by important figures in piping such as Uilleam Ross (1869 [1975]) and Willie Ross (1923-n.d.[1950?]), Donald MacLeod (1954—n.d.[1974?]), George S. MacLennan (1929) amongst others. This increase in availability of text led to competitions being judged 'by the book' (also see Chapter 1, p57).

With the spread of literacy, however, [came] the idea of a fixed 'original' text, and its corollary that variety and change were signs of corruption and loss.... The relative primacy of the printed text vis-à-vis oral testimony raised urgent questions about the nature and location of 'authority' in a way that could no longer be avoided and the closing decades of the nineteenth century were to witness much anxious debate. (Donaldson 2000:209)

In order to research the role of the published music in contemporary bagpipe performance practice I decided to make case studies of two tunes from recordings of the discussion pipers. I studied both field recordings and commercially recorded performances. The list of recordings used for this

\(^{13}\) See Glossary in Appendix 3.
short survey is presented here; the recordings themselves are on the CD of musical examples, Appendix 2, where each track is listed.

**Tune 1: Hugh Kennedy**

<table>
<thead>
<tr>
<th>Artist</th>
<th>year</th>
<th>CD no. and company</th>
<th>Title/Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alasdair Gillies</td>
<td>1996</td>
<td>COMD2064 Temple Records</td>
<td>The Piping Centre 1996 Recital Series</td>
</tr>
<tr>
<td>Roddy MacLeod</td>
<td>2003</td>
<td>(Field recording)</td>
<td>Recorded by author at the Highland Society of London Competition 2003</td>
</tr>
<tr>
<td>Donald MacPherson</td>
<td>1996</td>
<td>COMD2067 Temple Records</td>
<td>The Piping Centre 1996 Recital Series, Volume 2</td>
</tr>
<tr>
<td>Robert Wallace</td>
<td>1983</td>
<td>COMD1008 Temple Records</td>
<td>A Controversy of Pipers</td>
</tr>
</tbody>
</table>

**Tune 2: The Clan MacColl**

<table>
<thead>
<tr>
<th>Artist</th>
<th>year</th>
<th>CD no. and company</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boghall &amp; Bathgate Pipe Band</td>
<td>1996</td>
<td>LCOM5181 Lismor Records</td>
<td>The Rubik Cube</td>
</tr>
<tr>
<td>Barry Donaldson, Inspector</td>
<td>1991</td>
<td>LCOM5201 Lismor Records</td>
<td>The Strathclyde Police Pipers</td>
</tr>
<tr>
<td>Angus MacColl</td>
<td>1996</td>
<td>LCOM5255 Lismor Records</td>
<td>The Clan MacColl</td>
</tr>
<tr>
<td>Roddy MacLeod</td>
<td>2003</td>
<td>(Field recording)</td>
<td>Recorded by author at Highland Society of London Competition 2003</td>
</tr>
</tbody>
</table>

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Printed Editions

In the following pages I analyse the performances on the CD of musical examples, Appendix 2. The amended versions of the tunes below, reflect the changes made by the pipers in their recordings. For the original settings see Appendix 1. There are only two printed sources for each tune. Hugh Kennedy (by Peter MacLeod) is printed in the “Edcath Collection, book 1” (Ramsay 1953) and in “The Pipe Teacher’s Assistant, vol.3, Winning Marches” (Mitchell 2000). The setting that appears in the Edcath collection is the urtext for pipers, but handwritten settings of the classic tunes also circulate freely within the piping world, copied from the printed settings. In the case of Hugh Kennedy, the tune is printed in the first edition of The Edcath Collection of Highland bagpipe music and drum settings, compiled by Pipe-Major Donald Shaw Ramsay B.E.M. in 1953 in the form in which it is still played today. The tune shows a hG at the beginning of the second beat of the bar in part 4, bar 6. All the pipers, with the exception of Rab Wallace, change this to a hA in performance, and the copy of the tune on the following page reflects this change. This is perhaps explained by a close examination of the printed setting of the tune (see Appendix 1); on first appearance this note seems to be a hG because it is above the stave and does not have a ledger line through it.
However, as Colin MacLellan pointed out to me, perhaps Ramsay always intended this note to be hA because the note is in fact printed slightly above the stave in the normal space for a hG, and the printer may have missed out the ledger line. Similarly, in bar 5 of Hugh Kennedy, the C in the second beat is written short in the original, however, all pipers play this held as a dotted semiquaver and my ‘aural’ version on p167 shows it dotted. This means that unique differences between pipers are highlighted in the analysis; rather than demonstrating the generally accepted changes from the original urtext. Other changes from the original printing present in all the pipers’ performances include the use of a standard E doubling on the very first anacrusis E and on the first note in p2: 14 instead of the odd strike movement which was a printer’s error (visible in Appendix 4). In the first bar of the tune there is a D gracenote printed from A to B, all of the pipers remove this from their performances. In p4: 5r all the pipers add in a D gracenote in the second beat when going from A to C. This feels natural to play and is evidence of the standardised ornamentation; the change is felt through the fingers and is corrected by all pipers. Finally, in the closing phrase of each part of Hugh Kennedy, all the pipers change the G gracenote from D to G (between the beats of the bar) to an E gracenote.

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14 This notation which I use throughout the thesis refers to a specific position in the tune (in this case, bar 1 of the second part) is defined in the ‘Guide to Notation’ in Appendix 1, p432.
The case of *The Clan MacColl* is more interesting as it was composed by John MacColl and is first printed in *Pipe-Major W. Ross’s collection of Highland bagpipe music, book 2* (Ross 1923 - n.d. [1950?]). It has also been reprinted once in “The Cairngorm Collection, book 2: The Classic 2/4 Marches” (Anon. 1998). However, several of John MacColl’s compositions that appear in Willie Ross’s books were removed by the publishers because Ross had not obtained permission to print them (see Cannon 1980:225). The tune now known as *The Clan MacColl* appears in the College of Piping Museum in John MacColl’s personal MS (which predates P/M Willie Ross’s publications) under the title, *P.M. Ross’ Farewell to the Scots Guards* (no date on MS), and the title was changed by MacColl in order to name it after the Clan MacColl. Cannon (1980:223-7) describes in detail each edition of Ross’s publications and distinguishes between the chronological sequence of publications by referring to ‘edition I’, ‘II’, ‘III’, and so on. Working through the various editions of Ross’s books shows that MacColl’s tunes were included in the first two editions of book 2 (1932[?] and 1934[or later?]) but had been removed in later editions, possibly by 1949 (see Cannon 1980:225). Various tunes were substituted for the MacColl compositions, and are clearly distinguished as they have a different typeface than the other tunes in the collection: *Dr Charles Bannatyne* (p.18) substituted with *The Braemar Highlanders*; *Major Byng M. Wright’s Farewell to 8th Argylls* (p.51) substituted with *The Stirlingshire Militia* and; *Mrs John MacColl* (p.21) substituted with *Charles Edward Hope*
Vere.\(^{15}\) (See comments by Seumas MacNeill (1977b).) The version of The Clan MacColl contained within Appendix 4 shows how it is printed in the latest edition (n.d.) of Willie Ross’s book 2, and there is only one common change that all the pipers make between this version and the ‘aural’ version shown on the next page: At p3: 3 all pipers use an E gracenote from D to G on second beat of the bar, the printed version has this as a G gracenote. Again, as in Hugh Kennedy, this is an ornamental change that feels right when playing the tune, and I put down to the standardised ornamentation in piping.

In common with many classic competition tunes, the setting that appeared in Ross’s collection set the standard for the twentieth century and is still regarded as the urtext. Indeed, in my experience it is not uncommon for judges to cite Ross in explaining a performance mistake to a competitor. I compared the recordings on the CD of musical examples, Appendix 2 to the published settings (See Appendix 2 for track listings). The differences and similarities between performances are discussed in detail below.

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\(^{15}\) Thanks to Roderick Cannon, Jeannie Campbell for their suggestions and assistance with editions.
Hugh Kennedy

Track 1: Rab Wallace Hugh Kennedy (1983)

He begins on low A of the tune by omitting the printed C before the first bar line. Rab only uses a doubling on E on the repeat of the first part. Rab Wallace is the only piper to play the printed hG on the second beat of p4: 6 as discussed above. In the third bar of the fourth part on the first beat on High G and in p4: 6, he plays a thumb gracenote instead of the doubling on high G. The major difference between this and the printed setting is that on the repeat of part 4, he plays the second time section from part 2 instead of the printed section, which gives the first part a showing again at the end of the tune.

Track 2: Jim McGillivray (1992)

Jim McGillivray plays the tune as printed on the previous page however, it is worth noting that he has made all the changes from the published version (discussed above) that aural tradition demands.

Track 3: Alasdair Gillies (1996)

Like Jim McGillivray, Alasdair Gillies plays the tune with all the changes that are accepted by pipers from the aural tradition.
Track 4: Donald MacPherson (1996)

Donald has a flatter overall pitch, no doubt due to his being of the older generation of pipers. In common with Wallace, he only makes the doubling on E at the anacrusis when repeating the first part.

Track 5 (field recording): Roddy MacLeod, Highland Society of London competition (2003)

In the fifth bar of part one, he plays a G gracenote from A to C on beat 2 that is printed as a D. Roddy's musical phrasing can clearly be heard on this track and close listening can reveal the phrasing structure he employs through stressing some notes over others.

Track 6: Strathclyde Police Pipe Band (1988)

The tempo is markedly faster than any of the solo performances being roughly 78 beats per minute to the slower solo piping average of about 70 beats per minute. The band goes straight to the low A on beat one from their introductory E and misses out the E and C combination. They all play an E gracenote in the closing phrase and have changed bar 3 in the second part to:

Hugh Kennedy, Strathclyde police
from the printed version above. This may be to facilitate band playing by providing a stronger anchor point for the pipe corps to come together on. They remove the F doubling from p4: 1 and 5, again possibly to aid integration.

The following tune is *The Clan MacColl* and I will now describe the printed setting presented here in relation to the performances:
The Clan MacColl

Track 7: Angus MacColl (1996)

Angus's performance mirrors the version above.

Track 8: Colin MacLellan (1992)

As above

Track 9: Barry Donaldson (1991)

In the first time through the first part, he plays the throw on D\textsuperscript{6} movement with a very short, or arguably without, the initial low G. This is an unusual method of playing the throw which is represented in some 19\textsuperscript{th}-century collections. I speculate that this is a mistake, rather than an intentional change from the urtext, because he only does it in this first part. However, throughout the tune, he tends to play the initial low G of the throw shorter than most players.

Track 10: Hugh MacCallum (1996)

It is interesting that Hugh as well as Donald MacPherson (see above) employs a flatter overall pitch. The version he plays mirrors that above.

\textsuperscript{16} See glossary of pipers' terms in Appendix 3 for an explanation of this and other piping terms.
Track 11: Bill Livingstone (1991)

Bill Livingstone plays at a faster tempo than other solo performances. He also has a notably richer timbre, possibly attributable to the recording itself. It is possible that he uses the E gracenote in third part (discussed above), and in p2: 3, I think he uses a D gracenote from B to E.

Track 12 (field recording): Roddy MacLeod (London 2003)

In p4: 1, 5, 1r; he changes the G gracenote up from A to C to a D gracenote. This is interesting because in the previous tune Hugh Kennedy, he makes the opposite alteration (a G gracenote for a D) in the same motif.

Track 13 (field recording): Gordon Walker (Former Winner’s Oban 2003)

Gordon uses a markedly faster tempo than other solo performances of this tune. This competition demands that the competitor plays twice each tune, and the second time through is identical to the first.

Track 14: Boghall & Bathgate Pipe Band (1996)

The band plays a G gracenote on the introductory E instead of the printed doubling, they do this in bar four where it appears again.
Analysis and Conclusions

The comparisons between the printed settings of Hugh Kennedy and The Clan MacColl demonstrate that competitive pipers performances' are largely book-based, with small differences from the printed settings common to all pipers. The very small differences between the published settings and the performances tell us much about the nature of competition piping. For example, the printed hG note in p4: 6 of Hugh Kennedy is changed to a hA in all but one performance of it. The odd strike movement on the first beat of the second part of Hugh Kennedy is 'corrected' by all pipers to an E doubling. All the pipers change the G gracenotes from D to low G to an E gracenote. These changes for performance show how the aural\(^{17}\) tradition is still actively informing the book-based culture of competition piping. It is striking that not only are the performances of these tunes almost exactly as printed, but that the very small changes made appear in almost all performances. That is not to say however, that they all sound the same. To an insider, although the music has been largely standardised, each performance is different in terms of the pipers' style and individual sound. Standardisation of performance practice is tied to the competitive nature of piping, and other historical facts of our tradition, such as the influence of the Highland Societies of London and Scotland (discussed in Chapter four, also see MacInnes 1989). This

\(^{17}\) Deliberately 'aural' rather than 'oral' because the changes in the tunes come to pipers from listening to others and are only occasionally discussed in one-to-one lessons.
concreteness gives validation to a book-based approach to the analysis of pipe music. Although some pipers have their own settings or play distinctive settings of a tune, generally, even these are from authoritative sources. For example, Willie McCallum's playing of Robert Reid's setting of *The Ewe wi the Crookit Horn* or Chris Armstrong's well-known renderings of P/M Angus MacDonald's setting of *Charlie's Welcome*. Occasionally a leading piper will play his own original setting of a tune, such as Gordon Walker's setting of *Highland Harry*. Sometimes a piper will even submit their own composition, particularly in the Hornpipe and Jig events, which are seen as less conservative than the March, Strathspey and Reel or Piobaireachd competitions. This is very rare and only attempted by world-class pipers. This is one of more straightforward ways that innovation and change are injected into the piping tradition.

Pipers are not slaves to the book. I believe that we have tried to get the printed settings to match performance practice. The greatest composer-pipers set out their ideas on piping through their compositions which are used as standard texts for the competitive piping community. That is why, if there is a printing error, or sometimes, a commonly accepted difference from the printed page, all pipers know about it through their tuition and listening experience, as the designers of these urtexts are always leading members of the performer community.
In my experience the small changes from the printed page that are commonly accepted by the piping community, are generally ornamental ones. These changes exist in pipers' oral tradition and are important; the oral traditions exist hand-in-hand with the literate traditions and complement each other. I discussed some of these issues with Colin MacLellan and he raised some interesting examples of how the oral and literate streams of knowledge exist side-by-side and sometimes contradict each other:

CM: One thing that is interesting about it, and I thought about this when you phoned me up the other day, it’s interesting about these settings, is that if you were very very faithful to the settings, you would actually play some things in competitions that you would get hammered for and... put out of the prize list for. Even by people who had a liberal mind about it because a lot of people’s knowledge doesn’t go back. What I’m talking about is, eh, examples of the way tunes were actually composed. Now if you came out and you played this in a competition (musical example transcribed).

[In the following musical example all the A notes, excepting the quaver, are traditionally played as dotted semiquavers, and the pointing in the version shown here by Colin reverses the pointing (the long-short/ short-long relationships). See further comment below.]
I mean how far would you get with that? But that's the way it's written! That's the way it was composed...also if you came out and you played:

Jeannie Carruthers (third part example Colin MacLellan)

Depending on who you are; they might laugh you off the boards.
And that's the way that tune was composed.

SM: How's it normally played?

CM: Just with a taorluath\(^\text{18}\) (example):

Jeannie Carruthers (third part example of standard modern performance, Colin MacLellan)

\(^{18}\) See glossary in Appendix 3 for taorluath and other technical piping terms.
SM: What is that? Jeannie Carruthers third part?

CM: Jeannie Carruthers yeah. Eh, other ones.

SM: So what happens there though? What's happened to those things, they've been written in the book, composed like that and then someone starts playing it differently?

CM: Yeah, eh, because whoever's had the authority to, I mean, when these books of light music were first published, I think what happened was people like John MacColl and Willie Lawrie started composing these tunes what in the twenties or the nineteen tens or whatever. And then all of a sudden, they were composed and I think they were quite widely played before they were actually published. So a guy like Willie Ross would take it, and he got into trouble for publishing stuff without permission; he just started slapping some of these tunes in his books and it was John MacColl got really ticked off, and you'll find in some of the first editions of Willie Ross's books its got Mrs John MacColl and in those second editions it's gone because John MacColl told him to take 'em out.

SM: Is that right? I didn't know that.
CM: Oh yeah, oh yeah, there was a big hoo-ha about that...but these people; Willie Ross and, I forget what other books were around in those days...they started getting published, and they were published by these people the way they played them and because it was people like Willie Ross and that became the bible of light music. And so the original way of composing them sometimes weren't, wasn't quite the right way [emphasis added]. Here's another example that springs to my mind, John MacDonald of Glencoe...the way John MacDonald of Glencoe was composed is:

John MacDonald of Glencoe (second part example of original setting by Colin MacLellan)

It doesn't have a tachum¹⁹ there (beat 2 of third bar)...it only has a tachum in the last part:

John MacDonald of Glencoe (fourth part, example by Colin MacLellan)

But if you were to go and play that today, I think probably in most cases that would be to your detriment if you didn't play a tachum in that second part. (Discussions: MacLellan 25/05/2004)

¹⁹ See glossary, Appendix 3.
In Colin MacLellan’s first example above, he refers to the ‘way tunes were actually composed’, effectively referring to the oldest settings of the pipe tunes he discusses, which are in some cases quite different from modern-day performance practice. In the case of Brigadier General Cheape of Tiroran (his first example), Colin refers to an unusual pointing that cuts the A notes in the tune and holds the C notes after them; whereas it is now commonly accepted that the tune is played with the pointing thus:

Brigadier General Ronald Cheape of Tiroran (modern-day standard performance practice)  
P/M Willie Ross

In ‘edition I’ which appeared in 1923 (see Cannon (1980:224)) the third part of the tune is written largely even throughout, with only minimal pointing shown:\textsuperscript{20}

Brigadier General Ronald Cheape of Tiroran (Edition I)  
P/M Willie Ross

\textsuperscript{20} When copying this music from the original publications, I have found that I cannot reproduce exactly the (now) unusual grouping of having 4 notes in the beat with the outside two dotted and the inside two not barred together, but actually with the flags (or cuts) facing the outside dotted semiquavers. Thus in my copy above, note that the E D C A motif in bar two has used conventional note grouping; in the original the two inside demi-semiquaver flags face the outside dotted semiquavers. I am grateful to Dr Roddy Cannon for helping me to clarify many of the musical examples in this thesis.
In ‘edition II’ of *Pipe-Major W. Ross’s Collection of Highland Bagpipe Music*, the music is exactly the same as in ‘edition I’. However, when ‘edition III’ is published, various pointing relationships have been added to what were once evenly timed notes, and it is probably this version that gave rise to Colin MacLellan’s story above, demonstrating the sometimes unusual relationship with the printed page that competition piping has created. Here is edition III, note that the pointing is exactly as Colin MacLellan recalled with the initial A note cut up to the held C note in bar 1. Interestingly, the pattern is reversed in the second bar, however the rhythmic scheme in bars 1 and 3 is so different from modern convention that it would be immediately recognisable to any competition piper:

![Musical notation](image)

This oddity is discussed in *The Piping Times*, see Seumas MacNeill (1977b) and Forbes (1978). Moreover, we know that P/M Willie Ross actually played the third part with the low A notes held, as per the ‘modern-day standard performance practice’ example above, and not as he had printed in his own publication. This information comes from John D Burgess, who is cited in MacNeill (1977b:31).
These are good examples of where the early versions of tunes sometimes do not reflect performance practice, however, as time has progressed, publications (and printer's) methods have improved. The point to highlight here, is that Colin cites these examples of published music as going against performance practice – 'they might laugh you off the boards'. This highlights two aspects of the relationship between performance and the book: Firstly, that Colin MacLellan had noted that there was a dichotomy between performance practice and the settings of the tune indicates the high value placed upon the printed settings of music. Secondly, this example shows that the aural tradition can override the authority of the printed page.21

In terms of the use of printed settings of music for the analysis of the canon of tunes, this short examination of performance and its relationship to the printed book settings of tunes, shows that there is a 'dialogue' between notation and the aural tradition – where the aural tradition takes the higher authority, but where the book is also highly valued by pipers. It is my opinion that much of the publication of pipe music has been an attempt to reflect performance practice, but that there have been different standards of accuracy, with some pipers less concerned with the accuracy of notation than others. This has given rise to the occasional dichotomy between the page and the ear. As a competition piper myself, and after considering the relationship

21 This situation is very different from other traditions in Scotland and in traditional musics generally, where there is far greater freedom to invent in performance.
between the printed settings of the canonical tunes and actual performance practice, I have based my analysis in this chapter upon the published settings of tunes because, in general they are a good representation of what is being currently played. My own performance and listening experience over the last fifteen years also informs my analysis of each tune in the canon, allowing me to assess each printed setting against my knowledge of contemporary performance practice. I therefore have a confidence, grounded in experience, that the motifs on the page match those in performance.

Mode and Emotion

The drone tonic adds, as it were, an extra, quasi-harmonic dimension to Indian modality; all sounds are felt not only in intervallic relationship one to another but also, on another level, in direct intervallic relationship to the constant, over-riding drone tonic. (Powers 1958:456)

The modal complex makes the most significant contribution amongst other factors, to the overall emotional effect of pipe music. It is not the modal complex itself that is an emotion, but that the use of certain modal devices that suggests the emotion to a listener, or performer, and they perceive music as emotion-inducing because of aural/psychological preconditioning that associates particular modes with particular emotions. This is a particularly
interesting area (with similarities to the Indian music referenced above) because of the constant varying degree of consonance the drone provides. The various modes, when combined with the pure and non-diatonic chanter intonation, give rise to interesting aural relationships in bagpipe music.

In any given mode, each pitch has a certain relationship towards the tonic and at the same time to the drone tonic (of A). For example, in a D tune, the note A is strong in the pitch hierarchy (because it is the fifth in relation to the tonic) but besides this, A also has the strongest acoustical agreement with the drones. In the tune, Mrs MacDonald of Dunach, the listener does experience, a celebratory and positive emotion, directly because of the relationship of the D mode to the drones. The emphasis upon the D, a strong fourth against the drone is combined with stress on F and A; a sixth and unison relationship to the drones giving a notably bright and therefore positive effect. The first part:

Mrs MacDonald of Dunach

This tune has a famous story associated with it: when Willie Lawrie was composing the tune he was sitting on the side of a hill (probably near Kinlochleven, where he worked in the slate mine) and he came up with the
idea of the first three notes (A, B and D). Then he heard an echo come back to
him, and so he decided to use this as his opening gambit to the tune. He then
played the F, hG to hA shown above, and the echo came back identically, he
went further by playing the next section:

\[ \text{\includegraphics[width=0.5\textwidth]{music_notes}} \]

and the echo came back across the mountainside to him:

\[ \text{\includegraphics[width=0.5\textwidth]{music_notes}} \]

and that was the way the tune was composed.

Below is a suggested table of modes and emotions, that I have written
directly from my own experience as a musician. I have deliberately used only
2/4 marches, in order to demonstrate the effect of the mode. Other factors also
clearly play a role in the creation of emotional effect, such as, tempo, tune
type, tune function, extra-musical associations. These all play a part, but the
modal complex that results from the relationship of the drone to the melody
in setting up aural consonance and dissonances cannot be overstated. I have
also shown the various pitch sets in a hierarchy. As suggested earlier pitch
hierarchies in piping are not concrete phenomena; they may slightly change
from tune to tune, and are not exclusive as there are other tunes that use
slightly different hierarchies. In the table that follows, under the column labelled ‘pitch hierarchy’ the first note gives the tonic of the mode, and the second indicates the structural tone that is used to create the aural tension against the drone.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Pitch Hierarchy</th>
<th>Emotional Connotation</th>
<th>March Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/G</td>
<td>ACED(BF) &amp; GBDE(CA)</td>
<td>Anger, frustration, tense</td>
<td>The Crags of Stirling</td>
</tr>
<tr>
<td>A</td>
<td>ABCEF</td>
<td>Strength, Steady</td>
<td>Kantara to El Arish</td>
</tr>
<tr>
<td>D</td>
<td>DEFAB</td>
<td>Celebratory, Positive</td>
<td>Mrs MacDonald of Dunach</td>
</tr>
<tr>
<td>B</td>
<td>BADFE</td>
<td>Sadness, Poignant</td>
<td>Donald MacLellan of Rothsay</td>
</tr>
<tr>
<td>Am</td>
<td>AGBED</td>
<td>Strong, swinging</td>
<td>Captain Carswell</td>
</tr>
<tr>
<td>E</td>
<td>EDBGF</td>
<td>Unsettled</td>
<td>The Royal Scottish Pipers Society</td>
</tr>
</tbody>
</table>

For example, *The Crags of Stirling* has an angry and frustrated edge to it. This is because in the A/G mode, the tune alternates between double tonic phrases of A, in strong agreement with the drones, and G-centred phrases, very dissonant against the drone. The overall effect of the G-centred phrases is to suggest to the listener a shifting, and ‘angry’ melody, which necessarily leads back to the more consonant and therefore relaxed sound of the A-centred phrase. The point here is how the drone determines the suggested emotion of a particular mode. The drone provides a constant quasi-harmony with the melody, leading to melodies being in constantly varying acoustical agreement and therefore suggesting a changing effect to the listener. This position is simple but entirely in line with Jenefer
Robinson’s view that there can be a simple relationship between basic feelings of tension/relaxation, and the arousal of those feeling in the listener:

If the melodic and harmonic elements in a piece of music affect our emotions, this would seem to require familiarity with the stylistic norms of the piece, but no further cognitions need be required in order for us to feel soothed, unsettled, surprised, or excited by developments in the music...the effect of the constantly shifting harmonic pattern [in Tristan und Isolde] affects us “directly” without conscious cognitive mediation...the return to the home key after a protracted stay in a distant harmonic area relaxes the tension in us and produces relaxing music. (Robinson in Alperson 1998:18-9)

The situation becomes very different if bagpipes are played with other instruments. For example, a tune in the G mode sounds tense when played on solo bagpipes, due to the continuous clash with the A drone. When playing with other instruments, a tune in G mode is often accompanied with G major chords\(^2\) and I have found that this gives rise to a completely different effect. In most tunes, if accompanied diatonically, a G mode tune can sound ‘happy’ in the same sense that a major key signature in western music would imply. When playing Highland, Border or Uilleann pipes (my own

---
\(^2\) Assuming for the purposes of this discussion, that pitches discussed are at standard western concert pitch. However when playing with non-pipers, (unless one is playing concert pitched border/Highland pipes) the pipe is accordingly tuned to the scale of B flat with a flattened seventh, thus G mode would approximate to Ab major key signature.
instruments) with accompanists, there are always interesting changes of musical meaning, because of the functional harmony imposed on the tune. There are significant differences in emotional meaning that arise when the context of bagpipe tunes changes from drone-accompaniment to harmonic accompaniment.

Tune Family and Mode

The analysis of any tradition’s repertoire cannot be disentangled from its performance practice. The tune family studies developed by Jackson (1937, 1943, 1952) Bayard (1944, 1950), Shapiro (1975) and Cowdery (1990) derived their data from traditions where there is genuine melodic freedom to invent in performance. Or, in other words, where the basic materials of the performance are closer to the “generalised melody” than the “particularised scale” (after Powers and Widdess 2000-2005). This means that the performance practice of singers and instrumentalists in primarily the Anglo-American folk song and Irish sean-nós traditions is cohesive, yet individuals have room to change the ‘generalised melody’ to suit themselves in performance.

Tune family studies were developed in response to this tradition when the scholars were excited by common resemblances between tunes and sought a way in which to assess their relatedness. Samuel Bayard’s classic definition of a tune family points towards this idea:
"A tune family is a group of melodies showing basic inter-relation by means of constant melodic correspondence, and presumably owing their mutual likeness to descent from a single air that has assumed multiple forms through processes of variation, imitation, and assimilation." (Bayard in Cowdery 1990:80)

After Bayard, the tune family concept included melodic motifs (Cowdery 1990:83). Tune family studies were restricted to British-American material until Cowdery. Cowdery (1990) did an extensive study of Irish music, applying and extending the theory of tune family. He offers three principles with which to "discuss the relationships between tunes in a given repertory" (1990:88).

1. **Outlining:** where tunes are grouped through similarities in their overall contours. This principle overrides considerations of cadence and final.

2. **Conjoining:** Blends into the first, these tunes have sections in common, while other sections differ. Similar to the relationship between *Bonnie Ann* and *Leaving Lunga*, discussed further in Chapter 4.

3. **The recombining principle,** where comparisons of tunes are made between section to section, and whole to whole without requiring a fixed overall contour.

Cowdery uses the examples of *Caber Feidh* and *Rakish Paddy* to illustrate the outlining relationship. He shows through the comparison of each strain
that the central idea is "stating a motif, transposing it up a step, then restating it. One such tune is the well-known *Irish Washerwoman*, but its outlining relationship to the *Rakish Paddy* tunes is not consistent after the first three-quarters of the first strain" (1990:109).

The conjoining family principle is illustrated by the tune, *The Boyne Water*. Cowdery demonstrates with numerous examples how the four phrases he has identified (1990:110) are used in the tunes, and even how they are inverted. This is a study of contour and the notes used in these dance tunes are not exactly the same as is the case with the motifs presented in this Chapter. The conjoining principle is a useful framework for studying tunes, where the phrases can contract or expand, double-up, etc.

The recombining principle is the most advanced of the tune family theory, and is similar to modal analysis, where motifs feature in different positions in the tunes. The recombining principle is a way of understanding folk composition as a process (1990:92-3). In comparison to the modal complex of the 2/4 march there is one major difference. As argued above, the Highland piping competition repertoire is now largely book-based whilst making use of oral tradition to inform performance practice. Therefore in competition, the notes one piper plays will, by the non-piper traditional musician's standards, be identical to those of another. In Cowdery's study of tune families, each version in his tune family of *The Blackbird* is presented with an analysis of its use compared to his "abstraction" of the tune family...
(1990:122), a similar concept to Powers's generalised melody (op cit). Thus he presents a clear case for all the various tunes/songs being related through his recombining principle. He goes on to suggest powerfully that his recombining principle of tune families “belongs on the practical/ melodic side of this spectrum, and that it is thus conceptually similar to the rāg(a) systems of India (and to the maqām system of Turkey, which shares some features with the Indian systems)” (1990:132). This ties in his analysis of tune families to the performance practice of Irish traditional musicians and singers. In contrast, the standardisation of pipe tunes means that the grammar of pipe music can be understood through specific motifs far better than through general contours. Thus analysis of tune families is more suited to repertories where there is more melodic freedom and improvisation in performance than conservative traditions, such as Highland piping.

This standardisation of the notes pipers play in competition is dealt with in more detail below in the section ‘Performance and the Book’ that deals with the relationship between the printed page and performance practice (p161). As competition is the primary performance context for solo pipers, and is the subject of this thesis, the repertoire used in modal analysis was derived from the discussions. During the discussions and my fieldwork at piping competitions it became clear that there was a canon of tunes used for competitions that was quite tightly controlled. This led to discussions about
this canon with all the discussion pipers and to the eventual analysis of the canon in this Chapter.

Canon of competition marches: Discussion evidence

I argue that this canon exists, firstly, because pipers are confident that judges know these tunes and can judge when a piper has deviated from the accepted urtext, and secondly, because only certain tunes have the necessary modal traits that qualify them for competition. It remains to be seen how this competitive canonical repertoire differs from similar non-competitive traditions, such as Irish Uilleann piping or the Scottish fiddle tradition?23 The canon is maintained by the consensus of the performing community in an aesthetic meritocracy. Furthermore, these tunes provide the basis for the modal analysis in this Chapter and the discussion of aesthetic concepts in Chapter 4.

I started writing a list of tunes, from my own knowledge, then gradually through the discussions and through attending many competitions, I added more tunes. I also received a document at the Argyllshire Gathering (2003) with all the Premier grade pipers' ceòl beag tunes. I then noted the number of times that each tune was entered. There was a considerable range

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23 There are of course competitions in the Scottish fiddle tradition, and in fact, in many traditions such as the accordion and vocal traditions. However, these competitions only form a small part of the overall playing tradition; whereas in piping, competition is the main performance context.
in popularity: for example the tune *The Clan MacColl* was submitted by eight different pipers. (Each competitor has to submit 6 marches, 6 strathspeys and 6 reels, all different.) Figure 2 below shows the March submissions for the Argyllshire Gathering former winners competition 2003. For comparison against my own canon of marches used for this study see below (p198):

**Figure 2:**

<table>
<thead>
<tr>
<th>Tune</th>
<th>number of times entered</th>
</tr>
</thead>
<tbody>
<tr>
<td>71st Highlanders</td>
<td></td>
</tr>
<tr>
<td>74ths Farewell to Edinburgh</td>
<td></td>
</tr>
<tr>
<td>91st at Modder River</td>
<td>2</td>
</tr>
<tr>
<td>Abercairney Highlanders</td>
<td></td>
</tr>
<tr>
<td>Angus Morrison of Locheynort</td>
<td>5</td>
</tr>
<tr>
<td>Argyllshire Gathering</td>
<td></td>
</tr>
<tr>
<td>Arthur Bigmold of Lochrosque</td>
<td>4</td>
</tr>
<tr>
<td>Braes of Castle Grant</td>
<td>4</td>
</tr>
<tr>
<td>Brigadier General Ronald Cheape of Tiroran</td>
<td>2</td>
</tr>
<tr>
<td>Captain Campbell of Drum-a-voisk</td>
<td>2</td>
</tr>
<tr>
<td>Clan MacColl, The</td>
<td>8</td>
</tr>
<tr>
<td>Crags of Stirling</td>
<td>4</td>
</tr>
<tr>
<td>Donald MacLean's Farewell to Oban</td>
<td></td>
</tr>
<tr>
<td>Donald MacLellan of Rothesay</td>
<td>2</td>
</tr>
<tr>
<td>Duchess of Edinburgh</td>
<td>5</td>
</tr>
<tr>
<td>Dugald MacColl's Farewell to France</td>
<td></td>
</tr>
<tr>
<td>Duke of Roxburgh's Farewell to Blackmount Forest</td>
<td>3</td>
</tr>
<tr>
<td>Edinburgh Police Pipe Band</td>
<td>2</td>
</tr>
<tr>
<td>Glenfinnan Highland Gathering</td>
<td></td>
</tr>
<tr>
<td>Highland Wedding</td>
<td>4</td>
</tr>
<tr>
<td>Hills of Kintail</td>
<td></td>
</tr>
<tr>
<td>Hugh Kennedy</td>
<td>2</td>
</tr>
<tr>
<td>Hugh Low of Tiree</td>
<td></td>
</tr>
<tr>
<td>Inveran</td>
<td>2</td>
</tr>
<tr>
<td>John MacColl's March to Kilbowie Cottage</td>
<td>6</td>
</tr>
<tr>
<td>John MacDonald of Glencoe</td>
<td>5</td>
</tr>
<tr>
<td>John MacFadyen of Melfort</td>
<td>3</td>
</tr>
<tr>
<td>Kantara to El Arish</td>
<td>3</td>
</tr>
<tr>
<td>Knightswood Ceilidh</td>
<td>4</td>
</tr>
<tr>
<td>Laird of Luss</td>
<td>2</td>
</tr>
<tr>
<td>Leaving Glen Urquhart</td>
<td></td>
</tr>
</tbody>
</table>
Leaving Lunga
Lord Alexander Kennedy
MacLean of Pennycross
Major Manson of Clachantrushal
Millbank Cottage
Mrs John MacColl (2nd most popular tune)
P/M John Stewart
P/M Willie MacLean
Pap of Glencoe
Ross-shire Volunteers
Royal Scottish Pipers Society
Southall
Stirlingshire Militia
Urquhart Castle
William MacDonald
Young MacGregor

<table>
<thead>
<tr>
<th>Tune</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaving Lunga</td>
<td>2</td>
</tr>
<tr>
<td>Lord Alexander Kennedy</td>
<td>2</td>
</tr>
<tr>
<td>MacLean of Pennycross</td>
<td>2</td>
</tr>
<tr>
<td>Major Manson of Clachantrushal</td>
<td>4</td>
</tr>
<tr>
<td>Millbank Cottage</td>
<td></td>
</tr>
<tr>
<td>Mrs John MacColl (2nd most popular tune)</td>
<td>7</td>
</tr>
<tr>
<td>P/M John Stewart</td>
<td>3</td>
</tr>
<tr>
<td>P/M Willie MacLean</td>
<td>2</td>
</tr>
<tr>
<td>Pap of Glencoe</td>
<td></td>
</tr>
<tr>
<td>Ross-shire Volunteers</td>
<td>6</td>
</tr>
<tr>
<td>Royal Scottish Pipers Society</td>
<td>2</td>
</tr>
<tr>
<td>Southall</td>
<td></td>
</tr>
<tr>
<td>Stirlingshire Militia</td>
<td></td>
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<tr>
<td>Urquhart Castle</td>
<td></td>
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<tr>
<td>William MacDonald</td>
<td></td>
</tr>
<tr>
<td>Young MacGregor</td>
<td></td>
</tr>
</tbody>
</table>

One of the questions that I put to all the interviewees was, do you think that there is a central core of popular tunes for competition which regularly get played? They all agreed that there is a canon of tunes that form the central repertoire of the competitions, this situation will arise because the best tunes get played repeatedly through time. However it is my belief that competition also makes competitors conservative in their choice of repertoire. Here Angus MacColl explains his conception of this area of ceòl beag.

AM: ...Well I'm guilty myself of playing the old ones that I learnt first, I mean I like them, just because they're good tunes. You know, I suppose I've got a fair list of them, I mean there the ones that I'll always play. There are some new ones, that are O.K. you know, but I just tend to like the old fashioned - well I tend to think of them as old fashioned - marches.
SM: Uh huh, but would you say that there is like that body of tunes, that

AM: Aye, that's what you hear all the time. (Angus MacColl Discussions 15/02/2002)

Willie McCallum also agreed that there was a canon of tunes but went further, suggesting that each genre of competition light music had a differing number of popular tunes. Furthermore, he suggested that tunes entering this canon did so on merit; but suggested the conservative force of competition inhibits new compositions being submitted. (See also Willie’s comments on p293):

SM: ...Would you agree that there's maybe a body of maybe sixty or seventy of each which are like a canon of tunes that are regularly played?

WM: Och aye, I mean I'd say with marches you'd probably say forty or fifty, in competitions certainly and recitals, probably with strathspeys it becomes a wee bit more narrow you'd be lucky if you could come up with twenty and maybe reels you'd be up to forty again. But strathspeys are fairly limited.
SM: You hear the same ones a lot.

WM: Aye, I mean you could go to any competition and you’ll definitely hear The Shepherd’s Crook, Maggie Cameron..., Susan MacLeod probably is one that’s got into the repertoire and it’s relatively recent you know, eh, you know but you’ll always hear these, you know Ewe wi’ the Crookit Horn you know these, that kind stuff.

SM: Because they’re good!

WM: Aye, because they’re good, but nobody’s written anything better or not many people have written anything better, the other thing is that sometimes people are not brave enough to put them in. You know there might be some good tunes out there and they’ll say, ‘Och, I’ll not play that ‘cause they’ll not know it’ you know, sometimes it needs somebody to actually be brave enough to do it you know. (Discussions Willie McCallum 27/02/2002)

These statements show that there is general agreement on this phenomenon which led me to consider exactly what tunes would be in this canon. One feature of this canon of tunes is age of composition, as the newer
compositions tend not to be entered into the competitions for fear the judges will not know them. Another feature of these tunes is that they have a strict on-beat structure. By this I simply mean that the beat of the tune is paramount and all the music is focussed around that beat. This has ramifications when it comes to the consideration of motifs off-the-beat towards the end of this Chapter. The following list of tunes is my estimation of the current canon of ‘2/4’ competition marches.
<table>
<thead>
<tr>
<th>MARCH</th>
<th>COMPOSER</th>
<th>BOOK</th>
<th>MODE</th>
<th>PITCH HIERARCHY</th>
<th>TONE BAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>71st Highlanders</td>
<td>Hugh MacKay</td>
<td>Scots Guards Bk. 1</td>
<td>A hexatonic</td>
<td>ABCDEF(G)</td>
<td>B</td>
</tr>
<tr>
<td>74th Farewell to Edinburgh</td>
<td>Major W. MacKinnon</td>
<td>Donald MacLeod Bk.2</td>
<td>A pentatonic</td>
<td>ACFD (DhG)</td>
<td>B</td>
</tr>
<tr>
<td>Abercairney Highlanders, The</td>
<td>A. MacKay</td>
<td>Scots Guards vol.1</td>
<td>A/G mode</td>
<td>ACE(BD) &amp; GBD(AC)</td>
<td>B</td>
</tr>
<tr>
<td>Angus Campbell's Farewell to Stirling</td>
<td>Hugh MacKay</td>
<td>Donald MacLeod Bk.1</td>
<td>A/G mode</td>
<td>ACE(BDF) &amp; GBD(EA)</td>
<td>D,D,D,G.</td>
</tr>
<tr>
<td>Angus Morrison of Locheynott</td>
<td>Donald Morrison, Aberdeen</td>
<td>Piping Times vol.39 no.6</td>
<td>A hexatonic</td>
<td>ABCD(E)</td>
<td>B</td>
</tr>
<tr>
<td>Argyllshire Gathering, The</td>
<td>John MacColl</td>
<td>Willie Ross Bk.4</td>
<td>A/G mode</td>
<td>ACE(BD) &amp; GBD(C)</td>
<td>B</td>
</tr>
<tr>
<td>Arthur Bignold of Lochrosque</td>
<td>John MacColl</td>
<td>Willie Ross Bk.1</td>
<td>A/G mode</td>
<td>ACE(BD) &amp; GBD(ACEF)</td>
<td>B,B,B,C.</td>
</tr>
<tr>
<td>Bonnie Ann</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Braes of Becklett, The</td>
<td>Willie Laurie</td>
<td>Willie Ross Bk.4</td>
<td>A pentatonic</td>
<td>ABCEFD(G)</td>
<td>B</td>
</tr>
<tr>
<td>Braes of Castle Grant, The</td>
<td>D. Macdonald and G.S. MacLenn</td>
<td>Scots Guards Bk. 2</td>
<td>A hexatonic</td>
<td>ABCEFD(G)</td>
<td>B</td>
</tr>
<tr>
<td>Brigadier-General Cheape of Tiroran</td>
<td>D. Galbraith</td>
<td>Willie Ross Bk.1</td>
<td>A/G mode</td>
<td>ACE(BDF) &amp; GBD(C)</td>
<td>B</td>
</tr>
<tr>
<td>Captain Campbell of Drumavosk</td>
<td>Willie Ross</td>
<td>Willie Ross Bk.3</td>
<td>A pentatonic</td>
<td>ABECFG</td>
<td>B</td>
</tr>
<tr>
<td>Captain Carwell</td>
<td>Willie Laurie</td>
<td>Scots Guards vol.2</td>
<td>A minor mode</td>
<td>AGEDBDF</td>
<td>E</td>
</tr>
<tr>
<td>Clan MacColl, The</td>
<td>John MacColl</td>
<td>Willie Ross Bk.2</td>
<td>A/G mode</td>
<td>ACEF(BD) &amp; GBD(C)</td>
<td>B</td>
</tr>
<tr>
<td>Clan MacRae Society, The</td>
<td>Willie Fergusson</td>
<td>Archie Cairns Bk.1</td>
<td>A pentatonic</td>
<td>ABECFG</td>
<td>B</td>
</tr>
<tr>
<td>Colin Thomson</td>
<td>R Campbell</td>
<td>Willie Ross Bk.3</td>
<td>A minor mode</td>
<td>AGEDB(F)</td>
<td>E</td>
</tr>
<tr>
<td>Comundrum, The</td>
<td>P/M P.R. MacLeod</td>
<td>Scots Guards Bk.2</td>
<td>A pentatonic</td>
<td>ABCEFD(G)</td>
<td>B</td>
</tr>
<tr>
<td>Crags of Stirling, The</td>
<td>Hugh MacKay</td>
<td>Willie Ross Bk.2</td>
<td>A/G mode</td>
<td>ACE(FB) &amp; GBD(AC)</td>
<td>G</td>
</tr>
<tr>
<td>Doctor E.G. MacKinnon</td>
<td>P/M P.R. MacLeod</td>
<td>Eacath Collection Bk.2</td>
<td>A hexatonic</td>
<td>ABCEFD(G)</td>
<td>B</td>
</tr>
<tr>
<td>Donald MacLean's Farewell to Oban</td>
<td>Archibald MacNeill</td>
<td>Cairgorm Collection Bk.2</td>
<td>A hexatonic</td>
<td>ABCEFD(G)</td>
<td>B</td>
</tr>
<tr>
<td>Donald MacLellan of Rothsay</td>
<td>Donald MacLeod</td>
<td>Donald MacLeod Bk.6</td>
<td>B/A mode</td>
<td>BCAE &amp; AFEC(B)</td>
<td>E</td>
</tr>
<tr>
<td>Duchess of Edinburgh, The</td>
<td>trad? (arr. Willie Ross?)</td>
<td>Willie Ross Bk.3</td>
<td>A/G mode</td>
<td>ACE(BD) &amp; GBD(AF)</td>
<td>B</td>
</tr>
<tr>
<td>Dugald MacColl's Farewell to France</td>
<td>John MacColl</td>
<td>Cairgorm Collection Bk.2</td>
<td>A/G mode</td>
<td>ACEF(BG) &amp; GBDA(FC)</td>
<td>B,E,D,D.</td>
</tr>
<tr>
<td>Duke of Roxburgh's Farewell, The</td>
<td>Angus MacKay</td>
<td>Donald MacLeod Bk.2</td>
<td>A pentatonic</td>
<td>ACGEBF</td>
<td>B</td>
</tr>
<tr>
<td>Edinburgh City Police Pipe Band, The</td>
<td>R Campbell</td>
<td>John Wilson Bk.1</td>
<td>A minor mode</td>
<td>AGEDB(CF)</td>
<td>E</td>
</tr>
<tr>
<td>Glenfinnan Highland Gathering, The</td>
<td>Ronald Laurie</td>
<td>John MacFadyen Bk.1</td>
<td>A hexatonic</td>
<td>AECFBD(G)</td>
<td>B</td>
</tr>
<tr>
<td>Highland Wedding, The</td>
<td>traditional</td>
<td>Willie Ross Bk.1</td>
<td>A hexatonic</td>
<td>ABCEFD</td>
<td>B</td>
</tr>
<tr>
<td>Title</td>
<td>Composer</td>
<td>Author</td>
<td>Mode</td>
<td>Chord Progression</td>
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<tr>
<td>----------------------------------------------------------------------</td>
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<tr>
<td>Hills of Kintail, The</td>
<td>Donald MacLeod</td>
<td></td>
<td>A minor mode</td>
<td>AGBDEF</td>
<td></td>
</tr>
<tr>
<td>Hugh Kennedy M.A., B.Sc.</td>
<td>P/M P.R. MacLeod</td>
<td>Edcath Collection Bk.1</td>
<td>A/G mode</td>
<td>ACEBF(D) &amp; GBDE(CA)</td>
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<tr>
<td>Inveran</td>
<td>George S. McLennan</td>
<td>George McLennan's coll.</td>
<td>A pentatonic</td>
<td>ABCEF(DG)</td>
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<tr>
<td>Jeannie Caruthers</td>
<td>John MacCall</td>
<td>Seumas MacNeill Part 1</td>
<td>A/G mode</td>
<td>ACEBF(DG) &amp; GEDB(C)</td>
<td></td>
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<tr>
<td>John MacColl's March to Kilbowie Cottage</td>
<td>Willie Laurie</td>
<td>Cairngorm Collection Bk.2</td>
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<td>ABCEF(G)</td>
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<tr>
<td>John MacDonald of Glencoe</td>
<td>Willie Laurie</td>
<td>Seumas MacNeill Part 1</td>
<td>A/G mode</td>
<td>ACEF(DG) &amp; GBDE(C)</td>
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<tr>
<td>John MacDonald's Welcome to South List</td>
<td>D. MacMillan</td>
<td>John MacFadyen Bk.1</td>
<td>A hexatonic</td>
<td>ABCEFD</td>
<td></td>
</tr>
<tr>
<td>John MacFadyen of Melfort</td>
<td>John MacColl</td>
<td>Seumas MacNeill Part 1</td>
<td>A hexatonic</td>
<td>ABCDEF(G)</td>
<td></td>
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<tr>
<td>John MacMillan of Barra</td>
<td>Norman MacDonald</td>
<td>Donald MacLeod Bk.1</td>
<td>A pentatonic</td>
<td>ABCEF(D)</td>
<td></td>
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<tr>
<td>Kantara to El Arish</td>
<td>Willie Fergusson</td>
<td>Willie Ross Bk.1</td>
<td>A hexatonic</td>
<td>ABCDEF(G)</td>
<td></td>
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<tr>
<td>Knightswood Celidh, The</td>
<td>Donald MacLeod</td>
<td>Donald MacLeod Bk.4</td>
<td>A minor mode</td>
<td>AGBDF(E)</td>
<td></td>
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<tr>
<td>Laird of Luss, The</td>
<td>A.M. Ross</td>
<td>Willie Ross Bk.3</td>
<td>A hexatonic</td>
<td>ACEDFB(G)</td>
<td></td>
</tr>
<tr>
<td>Leaving Glenurquhart</td>
<td>W. MacDonald</td>
<td>Willie Ross Bk.5</td>
<td>A hexatonic</td>
<td>ABCDEF(G)</td>
<td></td>
</tr>
<tr>
<td>Leaving Langa</td>
<td>J. Gordon</td>
<td>Willie Ross Bk.5</td>
<td>A hexatonic</td>
<td>ABCDEF(G)</td>
<td></td>
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<tr>
<td>Lonach Gathering, The</td>
<td>W. Grant</td>
<td>Willie Ross Bk.2</td>
<td>A hexatonic</td>
<td>ABCDEF(G)</td>
<td></td>
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<tr>
<td>Lord Alexander Kennedy</td>
<td>John Honeyman</td>
<td>Willie Ross Bk.2</td>
<td>A hexatonic</td>
<td>ADBFEC(CG)</td>
<td></td>
</tr>
<tr>
<td>MacLean of Pennycross</td>
<td>P/M A Ferguson</td>
<td>Willie Ross Bk.4</td>
<td>A hexatonic</td>
<td>ABCDEF(G)</td>
<td></td>
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<tr>
<td>Major Manson's Farewell to Clachantrushal</td>
<td>P/M D. MacLean</td>
<td>Scots Guards Vol.2</td>
<td>A pentatonic</td>
<td>ABCEF(DG)</td>
<td></td>
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<tr>
<td>Millbank Cottage</td>
<td>W.D. Dumbreck</td>
<td>Willie Ross Bk.4</td>
<td>A hexatonic</td>
<td>ABCEFG</td>
<td></td>
</tr>
<tr>
<td>Miss Eilspeth Campbell</td>
<td>T. Douglas</td>
<td>Willie Ross Bk.5</td>
<td>A/G mode</td>
<td>ACEF(DG) &amp; GBDE(A)</td>
<td></td>
</tr>
<tr>
<td>Mrs John MacColl</td>
<td>John MacColl</td>
<td>Seumas MacNeill Part 2</td>
<td>A/G heptatonic</td>
<td>ACDEF(G) &amp; GBDEF(C)</td>
<td></td>
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<tr>
<td>Mrs MacDonald of Dunach</td>
<td>Willie Laurie</td>
<td>Scots Guards Vol.2</td>
<td>D/A mode</td>
<td>DAFBG() &amp; ABCEG(DF)</td>
<td>B, E, E.</td>
</tr>
<tr>
<td>P/M John Stewart</td>
<td>George S. McLennan</td>
<td>John MacFadyen Bk.2</td>
<td>A hexatonic</td>
<td>ABCDEF(G)</td>
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<tr>
<td>P/M Wm MacLean</td>
<td>P/M P.R. MacLeod</td>
<td>John Wilson Bk.1</td>
<td>A hexatonic</td>
<td>ACEFPB(DG)</td>
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<td>Pap of Glencoe, The</td>
<td>Willie Laurie</td>
<td>John MacFadyen Bk.1</td>
<td>A/G mode</td>
<td>ACED(FG) &amp; DGBF(C)</td>
<td>E</td>
</tr>
<tr>
<td>Renfrewshire Militia, The</td>
<td>P/M J. MacKay</td>
<td>Willie Ross Bk.5</td>
<td>A minor mode</td>
<td>AGBDEF(C)</td>
<td></td>
</tr>
<tr>
<td>Ross-shire Volunteers, The</td>
<td>John Connon</td>
<td>Willie Ross Bk.3</td>
<td>A/G mode</td>
<td>ACEF(BD) &amp; DBGA</td>
<td></td>
</tr>
<tr>
<td>Royal Scottish Piper's Society</td>
<td>R. Campbell</td>
<td>Willie Ross Bk.4</td>
<td>E minor mode</td>
<td>EAGDBF</td>
<td></td>
</tr>
<tr>
<td>South Hall</td>
<td>P/M John MacLeLLan D.C.M.</td>
<td>John MacFadyen Bk.1</td>
<td>A hexatonic</td>
<td>ACEDBF(G)</td>
<td></td>
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</tbody>
</table>

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<table>
<thead>
<tr>
<th>Stornoway Highland Gathering</th>
<th>Hugh MacKay</th>
<th>Willie Ross Bk.1</th>
<th>A pentatonic</th>
<th>ABECF(G)</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stornoway Highland Gathering</td>
<td>The Competing Pipers</td>
<td>Donald MacLeod Bk.2</td>
<td>A hexatonic</td>
<td>ABCDEF(G)</td>
<td>B</td>
</tr>
<tr>
<td>Urquhart Castle</td>
<td>Donald MacLeod</td>
<td>Gordon Highlanders Vol.1</td>
<td>A/G mode</td>
<td>ACEF(B) &amp; GBDEF(A)</td>
<td>D, D, F, D.</td>
</tr>
<tr>
<td>William MacDonald</td>
<td>N. MacPherson</td>
<td>Donald MacLeod Bk.5</td>
<td>A heptatonic</td>
<td>ABCDEFG</td>
<td>A, A, G, E.</td>
</tr>
<tr>
<td>Willie Gray's Farewell to the Glasgow Police</td>
<td>John MacDonald?</td>
<td>College of Piping Tutor part 3</td>
<td>A pentatonic</td>
<td>ABCF(DG)</td>
<td>E</td>
</tr>
<tr>
<td>Young MacGregor, The</td>
<td>John MacGregor Murray</td>
<td>Willie Ross Bk.3</td>
<td>A heptatonic</td>
<td>ABCDEFG</td>
<td>B</td>
</tr>
</tbody>
</table>
Commonalities

In analysing the canon of marches the first step is to examine the commonalities between all the tunes in the repertoire. I first studied all of the tunes to establish their actual pitch sets and the hierarchies within them. I also noted for each tune, the structural tone occurring in bar 4. There are obvious and important differences, such as pentatonic, hexatonic or heptatonic tunes and I established various modes initially depending on the structure (double tonic, or single pitch set) and the actual notes used. These then became the basis for further analysis of motifs.

The first and most striking commonality between tunes is the occurrence of the structural tone at bar 4. Out of 35 tunes that are in either A heptatonic, hexatonic or pentatonic modes, 33 of these use the note 'B', at bar 4. The overriding use of the note B at the end of phrase two (structural tone bar 4) in tunes that use a tonic of A, does give credence to the possibility that pipe tunes are structured around the rule laid out in the sound aesthetics Chapter 2: consonance with the drone tonic. Furthermore, 60 out of the total 64 tunes in the canon are in A-centred modes. In other words there are only four tunes that do not use A as the tonic of the tune. This is further evidence of the strong influence of the drone on pipe music.

The other two tunes, The Renfrewshire Militia and William MacDonald are both heptatonic and use the notes, G, A and E. However the tune William MacDonald is modally ambiguous, in that it does not appear to follow the same phrasing structure of any of the other canonical tunes.
I identified a mode labelled A/G mode; this mode juxtaposes two pitch sets, based around tone centres of A and G respectively. There are 16 tunes labelled A/G mode and they all use two contrasting tonal centres of A (consonant) and G (more dissonant in relation to the drone tonic). Each phrase in A/G mode centres around two pitch sets of varying consonance: A, C and E form the basic notes of phrase a and are contrasted against the more dissonant G, B and D, centred around the G as the tonal centre. I have avoided the use of the term ‘triad’ in this thesis because these groups of notes are not triads in the western sense of the word. They are used together because of their individual consonance (A, E, C) and dissonance (G, B, D) against the drone tonic. The key is that pipers think horizontally about tunes and therefore ‘triad’ is inappropriate because it implies a vertical relationship between these notes.

On closer examination of the body of tunes in A/G mode, I discovered that there were some tunes which appeared to be in this mode, although they never used the note C, or perhaps as in The Edinburgh City Police Pipe Band, only use this note once. These tunes I have labelled as A minor mode. The word ‘minor’ is simply an appropriate term commonly associated with sad emotions, however, there is no third in this mode. There are 6 tunes labelled A minor mode:
These tunes all use a single pitch set that avoids the note C\textsuperscript{25} and occasionally (such as in the third part of *The Knightswood Ceilidh*) organise that single pitch set into a double tonic phrase-structure. This pitch set can be seen in the table above (F is used as a passing note). Both the A/G mode and the A minor mode have similar attributes in terms of their phrasing-structure, however the inclusion of the note C in the A/G mode makes this a very strong and popular mode on the pipes with its own distinctive motifs and feeling. The lack of the C note in the A minor mode, makes these tunes (e.g. *Captain Carswell, The Knightswood Ceilidh*) slightly more eerie to my ears and less aggressive, because the ear is continually pulled towards the more dissonant and unstable pitches of the chanter against the drone.

\textsuperscript{25} Except for occurrences in p\textsuperscript{2}: 5r of *The Edinburgh City Police Pipe Band* and as a passing note (in a tachum) in *The Renfrewshire Militia.*

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### TUNE

<table>
<thead>
<tr>
<th>TUNE</th>
<th>Composer</th>
<th>Mode</th>
<th>Pitch set</th>
<th>Structural Tone at bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Captain Carswell</td>
<td>Willie Laurie</td>
<td>A minor mode</td>
<td>GABDE(F)</td>
<td>E</td>
</tr>
<tr>
<td>Colin Thomson</td>
<td>R Campbell</td>
<td>A minor mode</td>
<td>GABDE(F)</td>
<td>E</td>
</tr>
<tr>
<td>Edinburgh City Police Pipe Band, The</td>
<td>R Campbell</td>
<td>A minor mode</td>
<td>GABDE(CF)</td>
<td>E</td>
</tr>
<tr>
<td>Hills of Kintail, The</td>
<td>Donald MacLeod</td>
<td>A minor mode</td>
<td>GABDEF</td>
<td>E</td>
</tr>
<tr>
<td>Knightswood Ceilidh, The</td>
<td>Donald MacLeod</td>
<td>A minor mode</td>
<td>GABDE(F)</td>
<td>G</td>
</tr>
<tr>
<td>Renfrewshire Militia, The</td>
<td>P/M J. MacKay</td>
<td>A minor mode</td>
<td>GABDEF(C)</td>
<td>G</td>
</tr>
</tbody>
</table>

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Introduction to motivic terminology

Every motif explored in this study has a table of occurrence. These, along with a guide to understanding them, are given in Appendix 1. These tables of occurrence formed the basis of my motivic analysis, allowing me to summarise the attributes of an individual motif and compare its uses throughout the canon. In this repertoire, motifs generally occupy one crotchet. I have studied the occurrences of motifs within a whole beat as they have meaning on the beat (There are some cases such as closing motifs, where the motif may run to two or three crotchets). For a full explanation of the offbeat occurrences of motifs see section 5 (below p246).

The repetitious structure of 2/4 marches means that often a motif is found repeated in a later part of the tune, where there is a recapitulation of the original part. For example, many tunes repeat the final two phrases of the third part on the second time through the fourth part. I decided to include all occurrences of any given motif, in order to see if they are used differently in repeats, particularly to find out if they always lead to the same note or not in the repeat. I have found that the tunes simply use the exact phrases from earlier parts for the recapitulation, therefore fulfilling the same function and leading to the same notes.
Motivic function

In the following analysis of the motifs I have used certain terms to describe the function of the motifs. I identified several different motivic functions including: linking motifs, falling motifs, rising motifs, closing and emphatic motifs.

Linking motifs: The linking motif is one that usually links a phrase into the next phrase or the end of a phrase to an important structural tone. For example the E C B A motif, is always used as a linking motif (see below).

Falling motifs: These motifs simply descend, often between the top-hand and bottom-hand. They sometimes give a feeling of cadential movement or completion to a phrase, and can also be linking motifs, such as in the use of the F E C A falling, linking motif in the third part of John MacFadyen of Melfort:

![Image of John MacFadyen of Melfort (third part)]

Rising motifs: Motifs such as the A B grip C D motif are rising motifs. They lead the tune up the way, often in contrast to congruent descending motion. For example the A B grip C D rising motif is often contrasted with the descending D C B A motif. Both rising and falling motifs, usually lead to a specific note in many tunes. For example the rising motif A B grip C D motif
almost always leads the note to E. Typical behaviour of this motif is well demonstrated in *Bonnie Ann*:

![Musical notation](attachment:bonnie_ann_notation.png)

*Bonnie Ann (second part)*

**Emphatic motifs**: Some motifs exist to emphasise individual notes with similar consonance to the drone tonic. They emphasise either consonance or dissonance against the drone, because of this I have called them *emphatic* motifs. Good examples of this particular kind of emphasis can be seen in the E C A and E A C A emphatic motifs and their related motifs down a tone, e.g. D B G and D G B G. This is well represented by the tune *The Rosshire Volunteers* where we can see the E A C A motif used for strong consonance, and its exact transposition down a tone focussed around G in bar 3. This is a good example of how the concept of the double tonic not only shifts the tonal centre, but shifts the whole passage to a new tonal centre.
Closing motifs: Closing motifs occur at the ends of parts and provide a sense of completion through the use of cadential movement. The majority of tunes in A modes use a C to A combination in the last bar of each part. In discussing closing motifs though, I mean to understand the common motifs that finish tunes. By emphasising E and A, a closing motif can provide a 5 – 1 cadential (cadential in a ‘closing’/melodic sense, rather than any harmonic sense) feel to a tune, such as in the final phrase of The Braes of Castle Grant. In performance the initial E of this closing motif would be pointed quite long in order to show the cadential effect:

Other tunes have different closing motifs and one of the most popular is the type that occurs in the The Laird of Luss:
which is used identically in more than 6 tunes; variants can be found in even more tunes. (See the section dealing with closing motifs p.249).

My terms for motifs are not complicated, because in general, the function of each motif in the 2/4 march is straightforward. This thesis concentrates on the function of the motifs only within the canon of 2/4 marches, but even the most casual observer can notice many of the motifs in this Chapter in other types of bagpipe music, such as reels and jigs.

The Motifs

The following pages now deal with each different class of motif, examining their occurrence, function and use within the context of the tune.

This section is laid out in the following manner:-

1) The falling motifs

   1.1) The 3 2 1 rhythm-contour motif
   1.2) F E C A motif
   1.3) E D C A motif
   1.4) E C B A motif
   1.5) hA E C A motif
   1.6) D C B A motif

2) The rising and falling motif
2.1) A B C A motif
2.2) G A B G motif
2.3) E F hG E motif
2.4) Function of the rising and falling motif

3) Rising grip motif
   3.1) A B grip C D motif

4) Emphatic motifs and Band tunes
   4.1) Emphatic anchor motif
   4.2) hA E C E and F E C E motifs in the solo canon
   4.3) 1 5 3 5 rhythm-contour motif
   4.4) 5 1 3 5 rhythm-contour motif
   4.5) 5 3 1 rhythm-contour motif
   4.6) 5 1 3 1 rhythm-contour motif

5) Offbeat occurrences of motifs

6) Closing motifs

1) The falling motifs

Here are some examples of these motifs:
These motifs appear in many tunes, as shown in the tables of occurrence (Appendix 1). Generally the falling motifs as described here, are usually also linking motifs, that is not to say that other motifs may not be linking motifs, just that this function in pipe music is generally fulfilled by these falling motifs. The other categories of motif with syntactic meaning such as the emphatic motifs, generally encompass a combination of rising and falling movement (see below). Besides their descending nature, falling motifs often provide a form of cadential movement that aids their linking function. The question of whether or not the descending nature of falling motifs aids their linking function in the music is questionable, however there are interesting questions to be answered in future research as to whether certain types of musical movement inherently suggest particular motivic function.

1.1) The 3 2 1 rhythm-contour motif

This is the most common rhythm-contour motif in the entire canon. It occupies one crotchet in a tune, and I suggest that it is the most common because it only has three notes. This motif occurs with the tonic of A and G:

\[ \text{OR} \]

\[ \text{The 3 2 1 motif, when realised as the falling C B A motif, commonly links to the main structural tones of the mode itself, i.e. when in A mode, it links to A} \]
or CtoE or E and when in B/A mode it links to B or F. It is also used, as in John MacMillan of Barra to link to structural tones. For example:

John MacMillan of Barra (first part)

![Music notation image]

This motif is used in several different modes, including most commonly the A modes, and in the A/G and B/A modes. The C B A motif occurs in a number of positions within the tunes; it has no specific structural position. Of the 6 A/G mode tunes that use the C B A falling motif, 5 of them also use it down a tone, B A G motif. This is another characteristic of the A/G mode.

<table>
<thead>
<tr>
<th>MOTIF CHARACTERISTICS</th>
<th>C B A motif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic of following modes</td>
<td>A modes, A/G mode, B/A mode.</td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>25</td>
</tr>
<tr>
<td>Function of motif</td>
<td>Falling motif (most common motif)</td>
</tr>
</tbody>
</table>

The C B A motif is strongly linked to the taorluath on A movement and is overwhelmingly found in the first bar of the tune. The motif occurs in 14 of the 25 tunes preceding or after a taorluath like this:

---

26 The A pentatonic, A hexatonic and A heptatonic modes share many characteristics exclusive to only those modes. When discussing these modes I will refer to them as the 'A modes'.
In all the following tunes, the motif occurs after the taorluath movement in bar one of the tune:

- Captain Campbell of Drum-a-Voisk
- Donald MacLellan of Rothesay (B taorluath)
- The Duke of Roxburgh's Farewell to Black Mount Forest
- The Laird of Luss (occurs not in p1: 1, but in p4: 2)
- The Lonach Gathering
- South Hall
- The Stirlingshire Militia (slightly altered to: A EA C BA)
- John MacDonald's Welcome to South Uist
- The Stornoway Highland Gathering (occurs not in p1: 1, but in p4: 2).

The motif occurs before the taorluath in p1: 1 of the tune in the following tunes:

- The Braes of Brecklet
- The Argyllshire Gathering
- Angus Campbell's Farewell to Stirling
- John MacMillan of Barra (final note E not A)
- P/M John Stewart (final note of bar E not A)

What does this use of the falling C B A motif linked to the A taorluath mean in practice? Opening a tune in this way provides great consonance with the drones and is a strong starting point for the tune. Including the tunes
mentioned above, the falling C B A motif is used in the first bar of 16 of the 25 tunes where it occurs in the canon: it is a popular opening statement.

When the 3 2 1 motif begins on B, it is typical of the A/G mode: 6 of the 7 tunes it occurs in are in this mode. Unlike the C B A falling motif outlined above, the falling B A G motif only occurs in the third and fourth bars of pipe marches. This is related to the double-tonic structure of tunes, as the second phrase (bars 3 and 4) is most commonly the G-centred phrase in an A/G mode tune. 5 out of the 7 tunes that use the B A G motif also use it in its C B A falling motif form. Motifs are often repeated in double-tonic tunes, simply transposed up or down a semitone, such as this one. For example in the first part of Dugald MacColl’s Farewell to France:

Interestingly, 5 out of the 7 ‘Farewell’ marches use the falling motif C B A or B A G. The ‘Farewell’ marches:

<table>
<thead>
<tr>
<th>Tune</th>
<th>3 2 1 rhythm-contour motif present?</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>74ths Farewell to Edinburgh</td>
<td>no</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>Motif Characteristics</td>
<td>F E C A motif</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>Modal characteristic of following modes</td>
<td>A modes</td>
<td></td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Function of motif</td>
<td>Linking motif</td>
<td></td>
</tr>
</tbody>
</table>

Of the 12 tunes in the canon where it is used 10 are in the A modes. I characterise this motif as a linking motif because of its function within the tunes. In 8 tunes the motif is used to link phrase b to the structural tone at bar 214.

The significance of this is unclear, as in my opinion current compositional practice makes no link between the title and the musical devices in the tune. However it may be possible that in the early decades of the twentieth century there was a link between title and the modal complex of a tune. To establish this would involve historically defined research, comparing title groupings, such as, ‘welcome’, ‘farewell’, ‘gathering’ – tunes with their respective modal traits.

1.2) F E C A linking motif

<table>
<thead>
<tr>
<th>Motif Characteristics</th>
<th>F E C A motif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic of following modes</td>
<td>A/G mode</td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>12</td>
</tr>
<tr>
<td>Function of motif</td>
<td>A hexatonic</td>
</tr>
</tbody>
</table>

Donald MacLean’s Farewell to Oban yes A hexatonic
Dugald MacColl’s Farewell to France yes A/G mode
Duke of Roxburgh’s Farewell to France yes A pentatonic
Major Manson’s Farewell to Clachantrushal yes A pentatonic
Willie Gray’s Farewell to the Glasgow Police no A pentatonic

The modal characteristic of following modes
Number of tunes used in
Function of motif

Of the 12 tunes in the canon where it is used 10 are in the A modes. I characterise this motif as a linking motif because of its function within the tunes. In 8 tunes the motif is used to link phrase b to the structural tone at bar 214.
four. This structural tone is most commonly the note B. In the remaining 4
tunes the motif falls on the last beat of a phrase, linking it to the consecutive
phrase. In performance practice, the initial F is often heavily stressed, that is,
held beyond its notated time value. This stress enables the player to
demonstrate the descending cadential feeling that arises from the falling fifth,
F to B. This happens for example, when playing *The Laird of Luss* (as shown
by the curve):

```
The Laird of Luss (1st part)  A.M. Ross
```

1.3) **E D C A motif**

```
\[ \text{EDCA motif} \]
```

<table>
<thead>
<tr>
<th>MOTIF CHARACTERISTICS</th>
<th>E D C A motif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic of following modes</td>
<td>A/G mode</td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>4</td>
</tr>
<tr>
<td>Function of motif</td>
<td>Linking motif</td>
</tr>
</tbody>
</table>

27 Because the volume of the bagpipes cannot be changed in performance, pipers tend to
manipulate the length of notes to alter the ‘stress’ and achieve phrasing etc. See Chapter 4 for
further analysis of pointing and phrasing.
This motif is a characteristic of the A/G mode and always occurs in bar 2, and correspondingly, often in bar 6 (the repeat of phrase a). It occurs on beat 1 of bar 2 in two of the tunes, and on beat 2 of bar 2 for the other two tunes. I still classify this as a linking motif (even though it occurs in the middle of phrases), because when playing these tunes, this motif has the feeling of linking important parts of the melody together.

1.4) E C B A linking motif

<table>
<thead>
<tr>
<th>MOTIF CHARACTERISTICS</th>
<th>E C B A motif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic of following modes</td>
<td>A modes</td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>8</td>
</tr>
<tr>
<td>Function of motif</td>
<td>Linking motif</td>
</tr>
</tbody>
</table>

The E C B A motif is found in tunes such as Donald MacLean’s Farewell to Oban or John MacDonald’s Welcome to South Uist (see Appendix 1). It is used exclusively as a linking motif; between phrases, or to the structural tone at bar 4. For example, in Kantara to El Arish:

Kantara to El Arish

W. Fergusson
Here we can see that the E C B A motif always provides an E as the structural tone for its beat. This can be significant, if we look at the structural tones of the line above:

![Music notation diagram]

We can see that the E C B A falling motif gives a linking effect because it is descending and it provides a suitable structural tone for that descent to B needed at the end of the line.

1.5) hA E C A falling motif

![Music notation diagram]

<table>
<thead>
<tr>
<th>MOTIF CHARACTERISTICS</th>
<th>hA E C A motif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic of following modes</td>
<td>A/G mode, A pentatonic mode.</td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>5</td>
</tr>
<tr>
<td>Function of motif</td>
<td>Emphatic motif</td>
</tr>
</tbody>
</table>

This motif appears in various places, emphasising strong consonance against the drones. For example here we can see the motif being used to stress the note hA in the second part of The 74th's Farewell to Edinburgh:
When playing this second part, I stress\textsuperscript{28} the hA notes at the beginning of the hA E C A motif; this emphasises the note hA, and the descent, through E, C and A helps to reinforce the feeling of consonance within the phrase.

1.6) D C B A falling motif

<table>
<thead>
<tr>
<th>MOTIF CHARACTERISTICS</th>
<th>D C B A motif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic of following modes</td>
<td>A/G mode, A hexatonic mode.</td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>5</td>
</tr>
<tr>
<td>Function of motif</td>
<td>Falling motif</td>
</tr>
</tbody>
</table>

\textsuperscript{28} Pipers 'stress' notes in performance by slightly extending the note length. See further description in 'Phrasing and Pointing' section of Chapter 4.
This motif is a Falling motif, and like the C B A motif, is simply a common motif that is used throughout the repertoire as a stock phrase.

Some of the falling motifs shown above are used as linking motifs and occur in structurally significant places. They are used to link one phrase to another and often in A mode tunes; at the end of phrase b to link the melody to the structural tone of B in bar four. The other falling motifs are used as formulaic descending motifs, and do not occur often enough to have a distinct function such as the F E C A motif has.

2) The rising and falling motif

The rising and falling emphatic rhythm-contour motif can be represented thus:

This rhythm-contour motif is realised in the tunes primarily from A and G.

For example in the first bar of Kantara to El Arish:
2.1) A B C A motif

<table>
<thead>
<tr>
<th>MOTIF CHARACTERISTICS</th>
<th>A B C A motif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic of following modes</td>
<td>A modes, A/G mode.</td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>9</td>
</tr>
<tr>
<td>Function of motif</td>
<td>Emphatic motif</td>
</tr>
</tbody>
</table>

The A B C A rising and falling motif occurs in various positions in the tunes; with no distinct place for its usage. It is used to emphasise the note A in the phrase it occurs in, so I call it an emphatic motif. Here the motif can be seen in its emphatic position in the *Stornoway Highland Gathering* p3: 2:

*first two bars of the 3rd part of the Stornoway Highland Gathering*

Of the 9 tunes in which this motif occurs, 6 are in the A modes. Although it could be viewed as a characteristic of the A mode tunes, its use in A/G mode tunes shows it is a common motif. Its function of emphasising A is perhaps a reason for its use in varying places throughout the canon. This particular motif strongly agrees with the drone tonic and by reinforcing the drone, lends a feeling of strength to tunes. Motifs like this one are characteristic of pipe music: they feel ergonomically comfortable and they emphasise the drone tonic. This can lead to pipers holding the emphatic note in the motif for longer than is notated, effectively making the first A note something like a double dot in practice.
An interesting aspect of the modal complex is shown in the tune *The Braes of Brecklet*. In this tune, the A B C A motif occurs on the opening beat of the last phrase (c) of the first, third and fourth parts:

The **Braes of Brecklet** (first part)

However, more ingenious is how the composer has produced a reflection of the motif in the structural tones of the tune. Abstracting the structural tones of this part gives this skeleton of the tune:

**Braes of Brecklet: structural tones (first part)**

The A B C A motif is used as the introduction in phrase c to emphasise the structural tone of A, and it also reflects the structural tones of phrase c- A B C A. This is a good example of interplay between different levels of the modal complex, and to me, demonstrates how composers manipulate the modal complex of a tune, in order for it all to mesh perfectly together.
2.2) G A B G motif

The same rhythm-contour motif occurs on the note G, such as in the third and fourth bars of *The Royal Scottish Pipers' Society*:

... [Musical notation image]

<table>
<thead>
<tr>
<th>MOTIF CHARACTERISTICS</th>
<th>G A B G motif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic of following modes</td>
<td>A/G mode, E minor mode.</td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>3</td>
</tr>
<tr>
<td>Function of motif</td>
<td>Emphatic motif</td>
</tr>
</tbody>
</table>

It also occurs on G in *Abercairney Highlanders* and *Angus Campbell's Farewell to Stirling*. It serves to emphasise G in these tunes, in the same way that its sister (the A B C A emphatic motif) emphasises A:

The Abercairney Highlanders (first 8 bars) A. MacKay

[Musical notation image]

If we extract the structural tones from the first eight bars of Abercairney Highlanders:
We can see more clearly why the G A B G motif has been used to emphasise G. The first bar uses the rising A B grip C D motif to emphasise A and leads to the fifth above- E. This is then counterbalanced by the third bar which reverses the statement in the G-centred sub-mode, to give a falling fifth (D to G) statement. By using the G A B G motif in this way, the two phrases balance each other, and fit the question and answer phrasing. The motif is also strongly dissonant against the drone and this also helps create the tension needed to shift back into the more consonant phrase a. Furthermore, this is evidence of the contrast that the double-tonic structure produces (detailed in section 3.1 below). This motif is rarely used because of the strong emphasis on G, and thus dissonance, it provides.

2.3) E F hG E motif

<table>
<thead>
<tr>
<th>MOTIF CHARACTERISTICS</th>
<th>E F hG E motif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic of following modes</td>
<td>A minor mode</td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>2</td>
</tr>
<tr>
<td>Function of motif</td>
<td>Emphatic motif</td>
</tr>
</tbody>
</table>
A variant of the rising and falling rhythm contour motif occurs on E in the tunes *The Hills of Kintail* and *The Edinburgh City Police Pipe Band*. It takes the form of E F hG E with a slightly different rhythmic structure, such as in the first part of *The Edinburgh City Police Pipe Band*, bar 6:

![Musical notation](image)

Here the dotted notes are the first third (E and hG). This slightly different rising and falling motif also occurs from B, with the D emphasised, (for example in *The Crags of Stirling* p2: 4) however these occurrences are rare in the canon. A wider analysis of A minor mode tunes in the entire piping repertoire would reveal whether this motif is exclusively a characteristic of that mode.

2.4) Function of the rising and falling motif

The function of the rising and falling motif is to emphasise the tonic note of the passage it is in. Centred around A or G as the tonic, this motif is distinct from a linking motif in that it just provides an elaboration around the tonic note of the tune. The same function could be fulfilled by just a one crotchet note (on A or G), I have proved this to myself by repeated examination of tunes where I have substituted this motif for just a crotchet
note, and although it feels basic, it provides the same function as the four note motif.

3) Rising grip motif

This A B grip C D motif occurs from low A in an upward movement:

![Rising grip motif notation]

This use of the grip motif is very common in 2/4 marches. I did not find any occurrences of a G A grip B C motif in the canon of marches. This motif also occurs slightly altered, in many retreat marches. In retreat (3/4) marches it usually occurs with the first two notes as a dotted and cut quaver pair and the grip note as a crotchet, for example in Colin's Cattle:

![Colin's Cattle notation]

3.1) A B grip C D motif

<table>
<thead>
<tr>
<th>MOTIF CHARACTERISTICS</th>
<th>A B grip C D motif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic of following modes</td>
<td>A/G mode, A minor mode, (also exceptional occurrences in A hexatonic mode and D/A mode).</td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>11</td>
</tr>
<tr>
<td>Function of motif</td>
<td>Rising emphatic motif</td>
</tr>
</tbody>
</table>
8 of the 11 tunes this motif appears in are in the A/G mode. 2 of the tunes are in A minor mode, which is closely related to the A/G mode, and it appears in *P/M John Stewart* (p1:3) which is in A hexatonic mode. This, along with other motifs below, is evidence of the relatedness of the A/G mode and the A minor mode. In all of the tunes (except *P/M John Stewart*) the rising A B grip C D motif leads to an E. Furthermore, 6 of the 11 tunes also use the inversion of this motif D C B A and E D B A both leading to G. These descending motifs, from a performer’s perspective, balance out the rising grip motif. I think this is evidence, of what Buisman calls contrast (1995:25). In light music, not only do the tunes use double-tonic movement, but also contrast motifs with their inversions. This contrast between the inversions of the motifs can be seen well in the first part of *The Abercairney Highlanders*, a tune which could be classed as typical of the A/G mode:

![MIDI file of The Abercairney Highlanders](image)

Here we can see typical contrast of motifs; phrase a uses the rising grip motif from A (bar 1), and then contrasts it with the inversion from D, leading to the emphatic rising and falling motif centred on G (bar 3) (as outlined in section 2.2). The A B grip C D motif is found slightly altered to A B grip C hA, in *The
Stirlingshire Militia (p1: 2) and in The Braes of Castle Grant. In these tunes, this motif serves the same function. The rising grip motif is a great phrase to include in a tune and very typical of pipe tunes; perhaps because of the distinctive sound of the grip movement on the pipes. I classify this particular motif as a rising emphatic motif as it emphasises the A-centred sections whilst providing a rising statement that creates the question phrase in many marches.

4) Emphatic motifs and Band tunes

Context always has an impact on performance. For example, pipe bands have a different aesthetic to solo pipers. During the discussions with pipers it became clear that some tunes were labelled ‘band’ tunes, and were more suitable and popular with pipe bands than soloists. Analysis shows that band tunes: are usually played faster; have more parts; employ greater repetition; use anchor points to aid unison; employ a strong, driving melody and use emphatic motifs. Of these, the first two factors are straightforward; a fast tempo facilitates greater impact and excitement in performance. The longer tunes display the technical ability of the band and give the drummers more scope for virtuosity.

29 There are of course tunes that are popular in both bands and solos, such as The Highland Wedding and Hugh Kennedy.
Emphatic motifs, are motifs that emphasise the structural tone they are built around and the mode they are in. In doing this, they provide the feeling of strength and combined repetitively, they give drive to a tune. Tunes identified in discussions as being particularly suited to pipe bands are as follows:

*The Balmoral Highlanders*
*The Clan MacRae Society*
*Donald Cameron*
*The Highland Wedding*
*Hugh Kennedy*
*The Links of Forth*
*Lord Alexander Kennedy*

<table>
<thead>
<tr>
<th>Tune</th>
<th>Composer</th>
<th>Pitch Set</th>
<th>Mode</th>
<th>No. of parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balmoral Highlanders</td>
<td>Angus MacKay</td>
<td>ACEF &amp; GBDE(A)</td>
<td>A/G mode</td>
<td>6</td>
</tr>
<tr>
<td>Clan MacRae Society, The.</td>
<td>Willie Fergusson</td>
<td>ABCEF(G)</td>
<td>A pentatonic</td>
<td>4-6</td>
</tr>
<tr>
<td>Donald Cameron</td>
<td>Hugh MacKay</td>
<td>ACE(F) &amp; GB(DAE)</td>
<td>A/G mode</td>
<td>6</td>
</tr>
<tr>
<td>Highland Wedding, The.</td>
<td>traditional</td>
<td>ABCDEF</td>
<td>A hexatonic</td>
<td>6</td>
</tr>
<tr>
<td>Hugh Kennedy</td>
<td>P/M P.R. MacLeod</td>
<td>ACEBF(D) &amp; GBDE(CA)</td>
<td>A/G mode</td>
<td>4-6</td>
</tr>
<tr>
<td>Links of Forth, The.</td>
<td>traditional?</td>
<td>ABCDEFG</td>
<td>A heptatonic</td>
<td>6</td>
</tr>
<tr>
<td>Lord Alexander Kennedy</td>
<td>John Honeyman</td>
<td>ABCDEFG(G)</td>
<td>A hexatonic</td>
<td>6</td>
</tr>
</tbody>
</table>
There is no obvious mode that pipe bands favour, however 6 parts is a popular feature. Some of these tunes, for example, *The Clan MacRae Society* are known in several different settings ranging from four to six parts.\(^{30}\)

*Anchor points* are particular notes in the tune that are held longer than other notes to help maintain the strict unison of pipe band playing. Here is an extract from the discussion with Roddy MacLeod on this issue:

RM: See, I think tunes like *Donald Cameron* [see following page] big long notes, interspersed in some of the parts are quite good for bands, for pulling everybody together.

SM: It's kind of obvious where you have to.

RM: If you’re playing with fifteen pipers, then if you’ve got these anchor points everyone can pull towards them, whereas if you’ve got a tune, [musical example of *Bonnie Ann* see below] it’s kind of rolling on, and perhaps wouldn’t lend itself as well, you know.

SM: In some ways then, that would mean that the band tunes are more obvious where to put the strong beats in, or the band tunes are written so that the strong beats fall always on the left foot?

---

\(^{30}\) Some pipe bands invent their own settings that become associated with them, for example Boghall and Bathgate pipe band’s setting of *The Highland Wedding*. This setting is closely based on Robert Reid’s setting.
RM: There's not a formula really, but that might be a wee clue towards some of the reasons behind tune selection.... I think also as well the drummers have an influence on that as well. In that, they, the drummers like the big tunes as well because they make for scope and variety and what beatings they put forward; and the big tunes give them more opportunity to do that as well. (Discussions Roddy MacLeod: 5/6/2003).

By contrasting Donald Cameron and Bonnie Ann, we can see why the first lends itself to band playing, and why the latter does not. The first part of Donald Cameron:

Donald Cameron

The first part from Bonnie Ann:
These tunes demand a different approach, due to the motion of their melodies. *Bonnie Ann* is a ‘round’ tune and moves in steps rather than in leaps. Each phrase moves stepwise towards the goal note, and the b phrase, in this double tonic tune, is an exact replication of phrase a (bars 1 and 2) transposed down a tone, common in A/G mode tunes. In contrast, *Donald Cameron* has more leaps of fifths and fourths. When one plays these tunes, they demand entirely different approaches.

Emphasis upon the beat notes is a major feature of pipe band tunes. It adds to the driving force of the melody that pipe bands demand from marches. This is usually achieved by using particular emphatic motifs. These motifs, are usually used in repetition, and help to drive the tune on, whilst providing anchor points to aid unison playing. Consider the sixth part of *Donald Cameron*:

![Music notation for Bonnie Ann and Donald Cameron](music_notation.png)
Here, the tune is fully developed and makes very effective use of this emphatic rhythm contour motif:

4.1) Emphatic anchor motif

This rhythm-contour motif is used continuously throughout this part and elsewhere in the tune. The motif works within a given mode or sub-mode by emphasising the first and last notes, effectively 'anchoring' the band. The first note is either hA or F, in an A mode. (For example, the second beat of bar 1 and the first beat of bar 2 above). In the G-centred passage, these motifs are transposed down a tone, as in the second beat of bar 3. The use of the third and fifth tones also reinforces the mode of that section of the tune, emphasising the main notes of the mode promotes the feeling of 'strength' in the tune.31

The emphatic motif above, has a dotted first and fourth note. In practice, the first note of the motif can be read as the structural tone and this rhythm helps to emphasise it. It may have developed as a result of the marching of pipe bands where, as Roddy MacLeod says, the 'left foot beat' is

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31 In this discussion I am focussing on the band tunes listed above, there is a discussion of their use in the solo canon on p234.
strong. This rhythmic pattern \( \frac{\text{strong}}{\text{pattern}} \), serves many of the emphatic motifs and is therefore popular in many pipe band tunes. It serves to elaborate upon the main structural tones of the given mode and its contour serves to arrive at the structural tones emphatically. When used repeatedly, such as in the sixth part of Donald Cameron, the motif above is a very effective band tool for providing clear anchor points. Here is another example, the third and fourth parts of the march Hugh Kennedy.

Hugh Kennedy, third and fourth parts

Again, as in Donald Cameron, this descending and rising emphatic motif is used repeatedly to produce anchor points and pull the band together. The faster hemi-demi-semi-quavers in the middle of each emphatic motif contribute to the difficulty of the tune, thus making it sound more impressive.
Repetition of this rhythmic motif (outlined above) not only anchors the band around the structural tones of the part, but it gives a tune the driving sound highly prized by bandsmen. This kind of drive can be seen in both parts above, in the fourth part with the emphatic motifs, and also the strong repetition of A, indicated by the curve in the third part.

4.2)  \( hA \ E \ C \ E \) and \( F \ E \ C \ E \) motifs in the solo canon

![Musical notation]

(These are essentially the same motif, although I provide two separate entries for them see Appendix 1).

<table>
<thead>
<tr>
<th>MOTIF CHARACTERISTICS</th>
<th>( hA \ E \ C \ E ) motif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic of following modes</td>
<td>A modes</td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>15</td>
</tr>
<tr>
<td>Function of motif</td>
<td>Emphatic motif</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MOTIF CHARACTERISTICS</th>
<th>( F \ E \ C \ E ) motif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic of following modes</td>
<td>A modes</td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>14</td>
</tr>
<tr>
<td>Function of motif</td>
<td>Emphatic motif</td>
</tr>
</tbody>
</table>

These emphatic motifs are found in the canon of solo marches as well as band tunes. They are associated with the fourth part of marches in the solo canon.
In 12 of the 15 tunes where the hA E C E motif occurs, it occurs on the first beat of the first bar of the 4th part. The only exception to this is *The Young MacGregor* where the motif occurs in the second part.

The F E C E motif is most often used in the fourth part on the second beat of the bar, and often after an emphasised hA or, in two of the tunes, after the same motif from hA. It is also used in a few tunes, e.g. *Kantara to El Arish*, as part of a descending sequence in the phrase. Both the hA E C E and F E C E motifs are overridingly characteristics of the A modes.

4.3) 1 5 3 5 rhythm-contour motif

This is a strong rhythm-contour motif that emphasises notes 1 and 5. I have labelled it a band motif because it is so commonly used in pipe band tunes such as *Balmoral Highlanders, The Clan MacRae Society, Donald Cameron*. Its particular realisations occur in tunes thus:
The individual table (Appendix 1) shows that the A E C E motif is especially common in band tunes and is used repetitively in them. There are only one or two occurrences in the canon of solo tunes and in band tunes of the 1 5 3 5 rhythm-contour motif starting on G and D, and thus I have not given them their own motivic characteristics table.

One of the most popular pipe band tunes is The Balmoral Highlanders (see below). This tune clearly demonstrates all of the characteristics that bands favour; including a fast tempo, strong anchor points, characteristic emphatic rhythm-contour motifs, repetition, and an overall driving style. All these are evident in The Balmoral Highlanders, for example in bars 1 and 3 of the first part, the tune opens with a strong statement of the 1 5 3 5 rhythm contour motif. This firmly establishes the tune in the A/G mode, by contrasting the motif around these two tonal centres. Furthermore, parts 5 and 6 make great use of emphatic motifs in constant repetition, and are so closely related to part 1, they could be considered a variation: The same rhythmic pattern is used, in the motifs, the notes are the strongest in consonance and dissonance, i.e. A, E and C in the a phrases and G, D and B in the b phrases. Throughout the tune, the main emphasis is always on the beat, with little emphasis on the offbeat, apart from in bar 3, of parts 2 and 4. All

<table>
<thead>
<tr>
<th>MOTIF CHARACTERISTICS</th>
<th>A E C E motif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic</td>
<td>A modes, A/G mode.</td>
</tr>
<tr>
<td>of following modes</td>
<td></td>
</tr>
<tr>
<td>Number of tunes used</td>
<td>6</td>
</tr>
<tr>
<td>in</td>
<td></td>
</tr>
<tr>
<td>Function of motif</td>
<td>Emphatic (band) motif</td>
</tr>
</tbody>
</table>
this contributes to the driving style of the tune, and is aided in performance by the faster tempo of a pipe band (in relation to solo piping).
4.4) 5 1 3 5 rhythm-contour motif

This rhythm contour motif:

\[ \text{\begin{align*}
\begin{array}{c}
\text{5} \\
1 \\
3 \\
5
\end{array}
\end{align*}} \]

is realised around three different notes:

\[ \text{\begin{align*}
\begin{array}{c}
\text{E} \\
A \\
C \\
E
\end{array}
\end{align*}} \]

or

\[ \text{\begin{align*}
\begin{array}{c}
\text{E} \\
A \\
C \\
E
\end{array}
\end{align*}} \]

or

\[ \text{\begin{align*}
\begin{array}{c}
\text{E} \\
A \\
C \\
E
\end{array}
\end{align*}} \]

This emphatic rhythm-contour motif occurs throughout the canon in different modes, and is also popular in band tunes. The E A C E motif is the most common realisation of the 5 1 3 5 rhythm-contour motif and often occurs in phrase a. It typically occurs in the third part, and could be seen as a form of variation technique from the first part. The motif is used to elaborate upon the main notes of the mode. In A modes it emphasises the note E, and I have
observed that it is often used as part of a rising movement in the first phrase that is answered by a descending phrase to the structural tone B at bar 4. For example this contour can be seen in the tune *The Braes of Castle Grant* (first line):

Here the motif occurs in the 1st bar of the tune and is part of a rising phrase built around the sequence, C-E-hA-F and then answered by a descending phrase to B structural tone, bar 4. This contour of rising then descending to the structural tone at bar 4 aids the question and answer phrasing.

<table>
<thead>
<tr>
<th>MOTIF CHARACTERISTICS</th>
<th>E A C E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic of following modes</td>
<td>A modes, A/G mode, B/A mode.</td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>14</td>
</tr>
<tr>
<td>Function of motif</td>
<td>Emphatic motif</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MOTIF CHARACTERISTICS</th>
<th>D G B D motif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic of following modes</td>
<td>A/G mode, A minor mode.</td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>3</td>
</tr>
<tr>
<td>Function of motif</td>
<td>Emphatic motif</td>
</tr>
</tbody>
</table>

The hA D F hA motif only occurs in the tune *The Glenfinnan Gathering*.

4.5) 5 3 1 rhythm-contour motif

Another three-note motif that is very common within the canon of tunes is this emphatic falling rhythm contour motif:
The 5 3 1 rhythm-contour motif is most frequently realised as the E C A motif; its primary function being to emphasise the note E. However, it is associated with the 3 2 1 rhythm-contour motif realised as the C B A and B A G motifs, often occurring in the same tunes. It is used in both A/G mode and A modes. This motif appears to have been a particularly favourite one of the composer Hugh MacKay.
When realised as the D B G motif, it is found in the G-centred sections of A/G mode tunes, demonstrating the influence of the drones in producing double-tonic structures. This motif always occurs in contrast to the same rhythm-contour motif a step up, E C A, for example in the first part of *The Argyllshire Gathering*:

Here we can see in this tune the use of the C B A, E C A, A B C A, D B G, A B grip C D and D C B A G motifs. This use of such a high number of traditional motifs contributes to the feeling of traditionality in this tune. It is considered amongst pipers to be a classic tune, and is played every year by all the competing pipers' at The Argyllshire Gathering march to the games field. In this annual event, the winner of the gold medal takes the Pipe Major's position at the front, right of the group of pipers and the Silver medallist takes the front, left position. All the pipers march up from the town square in Oban to the games field for the second day's events. It is an unwritten tradition that just before the pipers reach the games field, the whole tune is played.
4.6) 5131 rhythm-contour motif

This emphatic rhythm contour motif emphasises the tonality of a passage in a given tune. Again it is primarily used around A and G:

![Rhythm-contour motif](image)

<table>
<thead>
<tr>
<th>MOTIF CHARACTERISTICS</th>
<th>E A C A motif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic of following modes</td>
<td>A modes, A/G mode, B/A mode, A minor mode.</td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>19</td>
</tr>
<tr>
<td>Function of motif</td>
<td>Emphatic motif</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MOTIF CHARACTERISTICS</th>
<th>D G B G motif</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal characteristic of following modes</td>
<td>A/G mode, A minor mode.</td>
</tr>
<tr>
<td>Number of tunes used in</td>
<td>8</td>
</tr>
<tr>
<td>Function of motif</td>
<td>Emphatic motif</td>
</tr>
</tbody>
</table>

The 5131 rhythm-contour motif is a very common motif in the canon of marches. When the 5131 rhythm-contour motif occurs in an A/G mode tune, it is used around both A and G. There is one exception to this, *The Crags of Stirling* which is a double-tonic tune; it uses a similar motif to the D G B G in the third part. When the E A C A motif occurs in an A/G mode tune it leads to other notes in tonal agreement. It leads to A, C, CtoE or hA. I have
also noticed that it regularly appears in all the tunes, in the later parts of the tune. This demonstrates two points: 1) the E A C A motif is used within a phrase of A-centred melody and not as a link to a sub-mode or phrase, and, 2) that the melodic density pipe marches increases generally through the tune.

For example notice the development of this motif in *Leaving Glenurquhart*, here are the second and fourth parts of the tune:

*Leaving Glenurquhart*  
W. MacDonald

(第二部分)

(第四部分)

Firstly, as can be seen in bar 1 of both parts the E C A and E A C A motifs are used within sections of strongly A-centred tonality, reinforcing this tonality with the emphasis upon the E and the A notes. Secondly, comparing the first
bars of each of these parts shows how the E C A motif could have been used but that the E A C A motif has been instead, as they serve the same function of emphasising the mode of the passage. The E A C A motif is more suitable in the fourth part because it increases the melodic density of the tune. Therefore this use of the E A C A motif can be seen as a form of variation technique between parts.

When the 5 1 3 1 rhythm-contour motif is realised as the D G B G motif, it is exclusive to the A/G and A minor modes, appearing in 8 tunes. This motif is also only used in phrase b of any tune, because the motif is most commonly used in answering or balancing the same rhythm contour motif from E (E A C A motif) in A/G tunes. As with the E A C A motif, the D G B G motif leads on to notes within the G-centred melody, confirming that this rhythm-contour motif is generally used to emphasise the mode and not to link or close a section.

The 5 1 3 1 rhythm-contour motif occurs in 8 of the 18 A/G mode tunes in the canon of marches:

```
\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{rhythm_contour_motive}
\caption{The use of this rhythm-contour motif to elaborate the melody in both the A-centred and G-centred phrases is another characteristic of the A/G mode in pipe marches.}
\end{figure}
```

The use of this rhythm-contour motif to elaborate the melody in both the A-centred and G-centred phrases is another characteristic of the A/G mode in pipe marches.
5) Offbeat occurrences of motifs

In order to fully understand motivic usage it is necessary to consider the use of motifs across a beat. All the entries within the master table of occurrence only consider motifs occurring within a crotchet beat. I analysed the use of the two most common motifs in this study - the 3 2 1 (e.g. C B A or B A G motifs) and the 1 2 3 1 (e.g. the A B C A or G A B G motifs) rhythm-contour motifs across the beat.32

For example the first two bars of Arthur Bignold of Lochrosque are typical:

![Music notation diagram]

Here the C B A motif is found slightly altered across a beat and barline. Albeit, the rhythm adds up to more than a crotchet. In a further example in The Lonach Gathering, the motif does add up to a crotchet as it does when it occurs on the beat:

![Music notation diagram]

32 For the full table of occurrences see the end of Appendix 1, after the main table of occurrences.
In this example as well as in the example above, the motif is found occurring across a beat. There are twenty occurrences of the 3 2 1 rhythm-contour motif occurring across a beat such as in the examples above. All of these occurrences of this rhythm-contour motif, are similar to these two presented above, whether or not they are an identical rhythm to the on-beat motif or not.

When analysing the A B C A motif I found that it only occurs in seven tunes in the canon, all in the A modes. This motif is either used across the beat with the first two notes as anacruses (example A - John MacMillan of Barra) or is found immediately following a taorluath (example B - P/M John Stewart):

A

B

In analysing these offbeat occurrences of rhythm-contour motifs, I realised firstly as a player that they do not have the same function as when they occur on the beat. This is because the composer of the traditional 2/4 competition pipe march works on a strict scheme on the beat. On consideration of the

---

3 There were no occurrences of the G A B G motif as a realisation of the 1 2 3 1 rhythm-contour motif.
total examples of offbeat occurrences of these motifs I came to understand the temporal significance of motifs. The modal complex that has arisen from competition piping has laid all its emphasis upon strong beats where the foot hits the ground. I suggest that the combination of the physical effect of marching to the beat of the ‘2/4’ and the conservative effects of competition has led to pipers viewing ‘offbeat’ or syncopated rhythm as outside the boundaries of competition performance. This means that the offbeat motifs discussed above do not have relevance for a modal complex that is derived from performance practice, but that they can clearly be extracted visually by an analyst. We see a good example of this effect in the tune The Conundrum, which is well-loved by pipers, but as a rule is never played in solo competition because of its inherent syncopated feel. In his article on The Conundrum, James Porter (1967) recognises that the syncopation in the tune ‘puzzled the experts’ (1967:246) and that because of this, the tune is seen as unusual. It is precisely because of this rhythmic ingenuity that the tune has not become a popular solo competition tune today. This is evidence of the context of competition as a conservative force in piping controlling the type of repertoire chosen for competition (explored at length in Chapter 4). Thus what is identified as ‘normal’ in competition piping is strict adherence to the beat of the tune, and therefore the deliberate use of offbeat motifs is not

34 It is quite popular with pipe bands; a less conservative performance tradition where change in the modal complex is faster.
recognised. This is a good example of analysis being informed by performance experience. Of course syncopated rhythms are used in piping but they do not feature in this fairly restricted and ‘traditional’ repertoire of the solo ‘2/4’ march. Therefore the offbeat motif has little or no meaning in terms of the modal complex. In more modern pipe band compositions, syncopation is a distinct feature.

6) Closing motifs

In any given mode there are many ways to complete a tune, but some seem more traditional than others. It is not surprising that these traditional endings are similar if not the same in many tunes. What is more interesting is that their contour helps the piper to accent them in performance and show the finality of the phrase. For instance, the closing phrase below uses a descending sequence of E D C A, which helps the player accent the end of the tune:

...closes

This is found in both Mrs John MacColl and The 74ths Farewell to Edinburgh.

Another closing motif that is common in A/G mode 2/4 marches is this one:
It occurs in Abercairney Highlanders and Bonnie Ann identically, and similarly in The Argyllshire Gathering and The Crags of Stirling. Here is another ending frequently used by the composers of the canon of marches:

It occurs similarly in many tunes:

*The Laird of Luss,*  
*Duchess of Edinburgh*  
*Lord Alexander Kennedy*  
*Pap of Glencoe*  
*Arthur Bignold of Lochrosque*  
*Brigadier General Ronald Cheape of Tiroran*  
*Stornoway Highland Gathering, The.*  
*Doctor E.G MacKinnon*  
*Leaving Lunga*

Also, this motif:

shows an elaboration upon the descending F E C A motif, and is found in the following tunes:

*Dugald MacColl’s Farewell to France*
The Clan MacColl
Hugh Kennedy
John MacFadyen of Melfort
Millbank Cottage
The Rosshire Volunteers
The Taking of Beaumont Hamel

Of course many of the tunes in the canon finish in their own unique way such as the closing phrase of The Braes of Castle Grant:

...  

All these motifs and others encompass a descending motion to the tonic of A, often moving through the note C. They stay within the traditional rhythmic schemes of marches, using common rhythms that are found in the rest of the tune. However, their contour (emphasising both F and E within 1 beat) aids an increase in rhythmic accentuation in bar 7, to help the cadential feel of the closing phrase. All of the closing motifs have a single accent on each beat of the last bar, however, in bar 7 often the tunes use two accents in a beat to balance this. For example, in The Rosshire Volunteers I accent both the F and the E in the second beat of bar 7, in order to better emphasise the close of the tune, as shown by arrows:
With the rest of the tune, apart from the final phrase, the accents are fairly evenly distributed and uniformly on the initial note of each beat. Thus when playing through the final phrase, the stress given to both the F and the E accents contributes to the finality of the phrase. Almost all of the closing phrases in the canon of tunes provide a bar 7 that allows the performer to accent them in this way.

Motivic analysis of composers: a master table

I have sometimes heard pipers remark that such and such a tune sounds like the work of a particular composer. Although the repertoire of each composer within the current canon of competition marches is necessarily small, some interesting traits of well-known composers emerged. The most popular march composer amongst competition pipers is John MacColl, who has seven tunes in the canon. The other most popular canonical-composers are Willie Lawrie (6 tunes), P/M Peter MacLeod (4 tunes) and Donald MacLeod (4 tunes). Hugh MacKay has four tunes in the canon (see below p255). John MacColl’s tunes are:
<table>
<thead>
<tr>
<th>Tune</th>
<th>Source</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argyllshire Gathering, The</td>
<td></td>
<td>A/G mode</td>
</tr>
<tr>
<td>Arthur Bignold of Lochrosque</td>
<td>Willie Ross Bk.4</td>
<td>A/G mode</td>
</tr>
<tr>
<td>Clan MacColl, The</td>
<td>Willie Ross Bk.2</td>
<td>A/G mode</td>
</tr>
<tr>
<td>Dugald MacColl's Farewell to France</td>
<td>Cairngorm Collection Bk.2</td>
<td>A/G mode</td>
</tr>
<tr>
<td>Jeannie Carruthers</td>
<td>Seumas MacNeill Part 1</td>
<td>A/G mode</td>
</tr>
<tr>
<td>John MacFadyen of Melfort</td>
<td>Seumas MacNeill Part 1</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>Mrs John MacColl</td>
<td>Seumas MacNeill Part 2</td>
<td>A/G heptatonic</td>
</tr>
</tbody>
</table>

As can be seen all but one are written in the A/G mode, which can therefore be considered a characteristic of his march-composition. In terms of motifs, no obvious ones dominate, however he does use the A B grip C D motif in three of his tunes, two of those employing it in bar 5 (The Argyllshire Gathering and Arthur Bignold of Lochrosque). Willie Lawrie uses this motif (A B grip C D) in two tunes: John MacDonald of Glencoe and Mrs MacDonald of Dunach. John MacColl uses falling motifs most commonly, furthermore, he often uses the same rhythm-contour motif from different notes, as is to be expected in A/G mode. For example he uses the falling E CA motif in The Clan MacColl and in The Argyllshire Gathering. He uses the D BG motif in The Argyllshire Gathering as well. Likewise he uses the B A G and C B A motif (the same rhythm-contour motif) in Dugald MacColl's Farewell to France and The Argyllshire Gathering. He often manipulated motifs by simply using them in an A-centric or G-centred phrase.
Examining P/M Peter MacLeod’s tunes suggests that he favoured the A pentatonic and hexatonic modes:

<table>
<thead>
<tr>
<th>Tune</th>
<th>Source</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conundrum, The</td>
<td>Scots Guards Bk.2</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>Doctor E.G. MacKinnon</td>
<td>Edcath Collection Bk.2</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>Hugh Kennedy M.A., B.Sc.</td>
<td>Edcath Collection Bk.1</td>
<td>A/G mode</td>
</tr>
<tr>
<td>P/M Wm MacLean</td>
<td>John Wilson Bk.1</td>
<td>A hexatonic</td>
</tr>
</tbody>
</table>

Further examination of his total compositions would provide the further evidence needed. It is also worth mentioning that he composed possibly the most ornamentally complex tune in the canon of marches, the seldom-performed Pipe Major William MacLean. This tune employs particularly dense ornamentation and is a formidable technical challenge to any solo piper. I have identified six separate motifs that P/M Peter MacLeod used, of these he used the falling C BA motif and F E C A in two different tunes. My own opinion is that P/M Peter MacLeod and his son were very inventive composers in all genres of ceòl beag.

Another talented composer who was prolific in all genres is the late P/M Donald MacLeod. He has four tunes in the canon of marches: Donald MacLellan of Rothesay, The Hills of Kintail, The Knightswood Ceilidh and Urquhart Castle. They are in B/A mode, A minor mode, A minor mode and A/G mode respectively. It is perhaps significant that all of his tunes in the canon are in fairly dissonant modes; he has none in the most common A pentatonic or...
hexatonic modes. He used 6 different motifs that I have identified in these tunes (as can be seen from the master table) and I can discern no obvious connection between the composer and motif. A comprehensive study of his six published collections might reveal interesting modal complex conclusions.

A number of the composers use the same motifs in different tunes. For example G.S. MacLennan has two tunes in the canon: Inveran and P/M John Stewart. He uses the same motif, F E C E in both tunes, however this is not a conclusive trait of his compositional style. A larger analysis of his tunes would have to take place.

One of the earliest composers of the competition march was Hugh MacKay (1801-1864), whose compositions in this canon of tunes are The 71st Highlanders, Angus Campbell's Farewell to Stirling, The Crags of Stirling and The Stirlingshire Militia. He had a predilection for composing heavy tunes, with a strong accents on the down beat. Furthermore, as John MacLennan suggests:

As a composer of the latter [marches] he may be said to have been one of the creators of the 'competition' march, now so prominent a feature of piping, which in its way is almost as interesting a product as piobaireachd (MacLennan, John 1972:18).

36 See glossary and analysis of the concept of heaviness in Chapter 4.
After some consideration of the total list of motifs and their usage by the most popular composers, two conclusions emerge:

1) That individual composers do have favourite modes. For example John MacColl's preference for the A/G mode, or P/M Peter MacLeod's use of the A modes, and:

2) In the canon of competition marches there are no motifs exclusive to a particular composer. This supports the idea of the motif as a common musical idea in an orally-developed tradition, where motifs are used by composers as the communal basic building blocks.

In considering the modal traits of an individual composer, a more fruitful approach would be to analyse what distinctive musical ideas they employ throughout their compositions. The very fact that the motifs I have identified in the canon of 2/4 marches are popular, suggests that in analysing a composer's work, one should identify their unique musical thumbprint. However, in order to do this, one must already know what the communal motifs are, and it is these motifs, communal to the bagpipe tradition, that are the subject of this research.

**Relationships between parts**

There is a definite relationship between the first and third parts and the second and fourth parts. This relationship was noted by all the discussion pipers, who confirmed that there is a distinct relationship between parts 1 and
3, and 2 and 4 in terms of their patterns of range. Indeed, there is a clue to this melodic relationship in the playing of three-part tunes:

"Three-part tunes tend to appear in the mid-nineteenth century, and Ross said (1869) that they should always be played as four parts, in the order, 1, 2, 3, 2." (Cannon 1987:135)

I began to examine this relationship through motivic usage. I examined the master table of motifs and from there, focussed on any occurrence of a motif that occurs in more than one part of a tune. One obvious feature of pipe tunes is the recapitulation of earlier parts in the second time through later parts. This of course leads to repetition of motifs exactly as they appear in earlier parts, however, as I am interested in how the new melodic material in parts three and four is related to parts one and two, I discounted from this analysis any motif that occurred in more than one part if it was only occurring as part of a second time; i.e. where it appeared as a recapitulation of an earlier part.

For example, in the tune Miss Elspeth Campbell the A B grip C D rising motif occurs in bars 1 and 5 of the first part (p1: 1,5) the same motif appears in the second part in bar 5 of the repeat (p2: 5r).

The first aspect of the relationship between the parts was to discover how many motivic occurrences there are in more than one part of a tune:
Of the 65 represented above; four of these motifs are to be found exclusively in parts 1 and 2. There are 12 occurrences exclusively of a motif only being found in parts 1 and 3 or parts 2 and 4:

- The 74th Highlanders
- Angus Campbell's Farewell to Stirling
- Abercairney Highlanders (2 motifs)
- Bonnie Ann
- The Braes of Castle Grant
- The Crags of Stirling
- Dr. E.G. MacKinnon
- John MacDonald's Welcome to South Uist
- The Lonach Gathering
- Miss Elspeth Campbell
- The Stirlingshire Militia
- The Rosshire Volunteers

There is no specific correlation between the mode of the tune and the relationship between parts 1 and 2 or parts 3 and 4.\textsuperscript{37}

\textsuperscript{37} There are only 4 appearances of a motif exclusively being used in parts 3 and 4 of a tune.
I conclude that on the evidence of the motifs studied, there is no motivic link between parts 1 and 3 or parts 2 and 4. This leads me to conclude that there is no link between the patterns of range, (which do in fact link parts 1 to 3 and parts 2 to 4) and motivic usage in this canon of marches. However, although a survey of motivic relationship between parts does not reveal much, the relationship perhaps lies in a more sophisticated look at variation in pipe tunes.

The patterns of range between parts 1 to 3 and 2 to 4 do show a correspondence, and I have noticed as a player that often the third and fourth parts do feel like variations upon the first two parts of a march. For example the well known march *South Hall* is a tune where there is an obvious relationship between parts:
The relationship between the first and third parts is plain to see: John MacLellan simply took the melody of the first part and increased the density of the tune, adding in notes and replacing the C B A motif in bar 1 of the tune with the C B C A motif in bar 1 of the third part. This is a device quite commonly used in pipe tunes where a three note motif is replaced in a later part by a four note motif. This is just the same relationship as was shown
(above) in Leaving Glenurquhart where the E C A motif in the second part is replaced by the E A C A motif in the fourth part.

Considering another tune, The Stirlingshire Militia, the relationship between the parts can be seen through variation. The first line of The Stirlingshire Militia:

![Musical notation](image)

The opening phrase of the third part (shown below) is a development of the musical idea introduced in the opening phrase of the tune, indeed the third part should be considered a variation of the first part and likewise the fourth part a variation of the second part. The opening bars of the third part of The Stirlingshire Militia:

![Musical notation](image)

I suggest that first and third parts are melodically congruent, and that the third part is really an extrapolation of the first phrase of the first part. It uses the identical melodic contour of A through E, C to A that is seen in the first bar of the tune, but extends it over two bars. The third part also employs the EACA crotchet motif which I consider to be related to the C B A motif, and a direct elaboration of the E C A motif which occurs in bar 2 of the first part.
This is combined with increased ornamental density to emphasise the heaviness of the tune.

*The Lonach Gathering* is another tune that displays the link between the parts well. The first and third parts focus around the bottom hand notes (G, A, B, C and D) and the second and fourth parts are centred upon the top hand notes (E, F, hG and hA). Moreover, the tune cleverly develops certain motifs, to increase the melodic density in the third and fourth parts. For example bar 3 of the first part uses the falling E C A motif, combined with an F E A figure.\textsuperscript{38} Here are the first four bars of the tune\textsuperscript{39}:

The first part is melodically related to the third part and the third bar is transformed using the same structural tones of E and F into a denser and more complex bar (shown with \textsuperscript{*}). The first four bars of the third part:

\textsuperscript{38} I have not identified the F E A figure as a motif in the canon as it is not commonly used, and that is why I will refer to it as a figure and not a motif.

\textsuperscript{39} On the second beat of the second bar in all parts of *The Lonach Gathering*, there is a C followed by a demi-semi-quaver B and a dotted semi-quaver C; in contemporary performance practice the dot and cut is reversed by most pipers, to a C quaver followed by a dotted semi-quaver B and a demi-semiquaver C. However I have endeavoured throughout this thesis to present the tunes as printed.

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Exactly the same relationship exists between the third bars of the second and fourth parts. Extracting the structural tones of the second and fourth parts provides better evidence of the relationship between parts 2 and 4. Here are the structural tones of the second part (see canon of tunes for whole tune in Appendix 4):

Here is the fourth part of *The Lonach Gathering*:

I have taken the structural tones of this part to be the following, based on the notes which I feel are most important to the skeleton tune:
This skeleton is identical to the second part, proving the melodic relationship between the second and fourth parts. The structural tones of the first and third are very similar but not identical in bars 1, 2 and correspondingly 5 and 6. In this way, many tunes are related, sometimes only visible when the structural tones are extracted and comparison can be made between skeletal melodies of related parts. It is remarkable that composers of pipe music can manipulate their tunes so well, as to sound coherently related throughout, but yet simultaneously unique in each part.

Melodic entities and their overall structure

All pipe tunes have opening/closing phrases, which act as temporal boundaries. Each part of tune has an opening phrase, usually of two bars, followed by the answering phrase, again followed by a recapitulation of the opening phrase and closure provided by the final phrase (phrasing structure). However all this happens within eight bars of an individual part; in a larger sense this works across the whole tune, at a higher structural level, where the first part is a statement of the melodic ideas, the second part introduces complementary melody, although in a higher range than the first, and the third part develops the themes of the first part in the low compass of the chanter. The final part, usually the fourth, completes the tune with a development of the tune, mostly in the upper range of the instrument. As
shown by the discussion evidence on patterns of range (see Chapter 4) this phenomenon was agreed by all the pipers I spoke to.

This multi-level structure could be represented thus:

This generalised and hierarchical tree shows the generative structure of pipe music. Instead of a cumulative hierarchy where the actual tune can be abstracted into a simpler structure, this diagram shows that the tune itself has more than one structure operating within it at the same time. There could be another level shown of cell, often used in motivic analysis as the smallest possible recognisable unit that makes up a motif. As most of the motifs I can identify are made up of one beat, to try to define a cell on a smaller level would be difficult. The advantage of analysing the motifs in pipe music, can
be seen above, as these motifs which can be found in one tune, are used over and over again in other tunes, forming the basis of the 'tradition' (see Chapter five for further discussion). In diagram 4, I have represented this hierarchy in a circular form. Each ring represents progressively smaller melodic entities: tunes, parts, phrases and motifs. As can be seen the innermost ring represents motifs that are common to more than one genre of tune. The sections of the circle represent the comparable size of each area of the current ceòl beag repertoire, and are my own approximations:

Diagram 4:
Modal Complex Conclusions: The traits of the 2/4 march

In this Chapter I have considered mode as an analytical tool for understanding the 2/4 competition march. As emphasised from the beginning, my role as a player-analyst has effected the interpretation of mode as an analytical tool placing motivic content at the heart of a mode. This has led to the understanding that motifs, and rhythm-contour motifs comprise the intrinsic bedrock that give meaning to a tune. In this study of canonical repertoire I wish to emphasise that the modal complex comprises the whole gamut of individual modes. The individual modes have specific traits that mark them out from each other and there are two distinct groups of modes in this modal complex. The first group are the A modes (comprising the A pentatonic, hexatonic and heptatonic modes) and the second are the double-tonic modes which in this case are essentially the A minor mode and the A/G mode. These two groups offer composers of 2/4 marches the most traditional framework for composition. The relationship between the pitch hierarchies, structural tones and motivic content can be understood best through performance. The pitch hierarchies are variable between modes depending on the emphasis of different notes and thus the two main structural tones form the basis for understanding how these tunes are laid out. The structural tones are essentially a temporal characteristic that define how to interpret the phrasing structure of a tune as can be heard by the emphasis pipers give them
in performance. One of the significant and original conclusions to this thesis is the discovery of particular motifs that are exclusive to each of these two groups. The motifs themselves are a more fundamental characteristic because they make the tune sound more or less traditional to the insider depending on how many there are and how appropriate they are to the mode. The following table shows the motifs found exclusively in these two groups.

Eleven of the twenty motifs in the canon of 2/4 marches are characteristic of either the A modes or the double tonic modes, and the remaining nine are common building blocks in the modal complex. The basic features of the modal complex are presented in the chart below. The column labelled ‘Pitch set and structural tones’ shows the pitch set of the mode that is normally used. Because the pitch hierarchies of individual tunes in the same mode are variable, I have not shown a typical pitch hierarchy, but have arranged the pitch set to show the two main structural tones of the mode as the first and second pitches. Metaphorically, the structural tones form the skeleton of the tune, but the motifs are the flesh that gives a tune its identity. The pitches in brackets are the ornamental pitches which are sometimes found in that mode, but do not constitute part of the main pitch set. In the case of double-tonic modes the primary pitch set is shown first and then the secondary pitch set after with their respective passing notes in brackets. It is important to note that the pitch sets listed for the double-tonic modes are...
exhaustive; they contain all the possible combinations within the one pitch
set, and therefore look quite large. Examination of the pitch sets in the A/G
mode, shows great variety in that there are quite different combinations of
juxtaposing pitch sets, but that they are always centred around the two
opposing tonal centres of A and G.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Typical pitch sets (with first two significant structural tones)</th>
<th>Motifs exclusive to particular modes</th>
<th>Tune example</th>
</tr>
</thead>
<tbody>
<tr>
<td>A pentatonic</td>
<td>A B C E F (GD)</td>
<td>• F E C A</td>
<td>Captain Campbell of Drumavoisk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• E C B A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• hA E C E</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• F E C E</td>
<td></td>
</tr>
<tr>
<td>A hexatonic</td>
<td>A B C E D F (G)</td>
<td></td>
<td>The 71st Highlanders</td>
</tr>
<tr>
<td>A heptatonic</td>
<td>A B C E D F G</td>
<td></td>
<td>The Young MacGregor</td>
</tr>
<tr>
<td>A minor mode</td>
<td>AEGBD(F)</td>
<td>• D G B G</td>
<td>Colin Thompson</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• E F hG E</td>
<td></td>
</tr>
<tr>
<td>A/G mode</td>
<td>ACEBFD(BDFG) &amp; GBDEA(ACEF)</td>
<td>• E D C A</td>
<td>Abercairney Highlanders</td>
</tr>
<tr>
<td></td>
<td>N.B. this body of double tonic tunes has no fixed pattern of</td>
<td>• A B grip C D</td>
<td></td>
</tr>
<tr>
<td></td>
<td>structural tones.</td>
<td>• B A G</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• D B G</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• D G B D</td>
<td></td>
</tr>
<tr>
<td>B/A mode</td>
<td>BFCEA &amp; AECFB(BG)</td>
<td>insufficient number of tunes in</td>
<td>The 91st at Modder River</td>
</tr>
<tr>
<td></td>
<td></td>
<td>canon of marches.</td>
<td></td>
</tr>
<tr>
<td>D mode</td>
<td>DAFBG &amp; ABCEG(DF)</td>
<td>(as above)</td>
<td>Mrs MacDonald of Dunach</td>
</tr>
<tr>
<td>E minor mode</td>
<td>EDGABF</td>
<td>(as above)</td>
<td>The Royal Scottish Piper's</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Society</td>
</tr>
</tbody>
</table>

* The A minor mode is very similar to the A/G mode as they are both double tonic modes, the main difference being the absence of the note C in the A minor mode. However, *The Edinburgh City Police Pipe Band* and *The Renfrewshire Militia* do use the note C; the former tune employing it once almost as an accidental to highlight the finishing of the tune and the latter
Some motifs are not characteristic of one mode, they are common building blocks with particular functions. These are: hA E C A, D C B A, A B C A, G A B G, E A C E, A E C E, C B A, E C A, E A C A. These motifs can be found throughout the canon of tunes and are an important part of the modal complex.

Of the total 64 tunes, 35 are in A modes and 24 are in either A/G mode or A minor mode. Therefore, it is perhaps unsurprising that I have found motifs exclusive to these two groups, as they have the highest frequency in the canon. Nevertheless, this demonstrates that thorough modal analysis can reveal the motifs of a particular mode in a particular genre of Scottish traditional music. The question of whether these or other motifs are characteristic of other tune-types generally is considered in Chapter 5. However, even a cursory examination of Strathspeys, Reels or Jigs shows that they are present, albeit often altered to suit different rhythmic schemes.

The motifs range from 3- to 5-note motifs, in the case of closing motifs even longer. There is a correspondence between length of motif and the frequency of occurrence. The most common is the falling 3 2 1 rhythm-contour motif. The majority of the motifs contained within the crotchet are 4-

tune uses it as a passing note in the first and last parts. I still feel that these tunes because of their character can be classed as A minor mode tunes.

41 There is also one tune which I feel is genuinely in an A/G heptatonic mode, this is Mrs John MacColl a very popular march, perhaps there are other tunes in other genres, which are in this double tonic arrangement but use the full scalar potential?

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note motifs. As can be seen from the closing motifs there are some unambiguous, longer motifs. These are reproduced exactly in different tunes and highly formulaic.

The placement of motifs is not as concrete as I first thought. In beginning this study, having casually noticed motifs occurring in many tunes, I felt that they would probably occur in the same position, or even beat of the bar within many tunes. The study of the modal complex has shown me that this is not the case. There are some motifs that often occur in the same place, such as the hA E C E and F E C E motifs in the first bars of the fourth parts of many tunes. The linking motifs, also occur in structurally significant places, such as the beat before the structural tone at bar 4, or on the last beat of phrase a in any given part. Many of the motifs covered in this Chapter are distributed within the tunes, depending on their function in the tunes, and I believe that the function of any given motif is more significant than its position within a tune. I identified functions such as emphatic, linking or closing for different motifs, and by and large they are used in these ways. The importance of functional motifs, is twofold: firstly by occurring in many tunes they reference the tune to other tunes, thereby aiding the concept of a melodic tradition. Secondly, as the function of a motif is of paramount importance to the meaning of a tune, 'mode' as an analytical tool can be viewed as a method for understanding how emotional effect in performance is created.
emotional effect of a performance is subjective and further research into the meaning of mode as 'effect' in bagpipe music is an area for further research.

The motif only exists within the context of a tune. It is not only defined by its function, but also the original and individual melodic ideas of the tune that surround it, and its use in other tunes in the tradition. Take the motif out of the tune, isolate it, and it means nothing. Trying to compose a Scottish tune by only using these motifs would be pointless as they exist within the greater context of modal attributes. For example, consider the patterns of range, that discussion evidence and observation of the canon confirmed were characteristic of the 2/4 march. One instinctively needs to be able to understand this concept, along with the placement of structural tones, the function of the motifs, the ornamentation associated with ergonomic gestures and to know the melodic tradition, through experience, before being able to compose in the traditional style. That takes an insider with the knowledge of all this and more, to be able to compose within this modal complex. However, as can be seen from the compositions of Jimmy Shand and J. Scott Skinner for example, one need not be a piper to be able to compose within the tradition. These men understood pipe music, and were able to compose tunes that sound as though they were written by pipers, as do composers working
today such as Phil Cunningham or Blair Douglas. However there are certainly many tunes, particularly in older collections of pipe music that are arranged for the pipes, having originated in other instrumental or song traditions. Fiddle tunes such as *The Laird of Drumblair* that were composed within another, albeit related, tradition are immediately felt as unidiomatic through the fingers, regardless of their aesthetic merits. One does not have to be a piper to be an insider in the compositional world. This is why composition is such a useful tool to the ethnomusicologist, as it provides an important analytical tool that can be evaluated by other musicians or singers.

There is a parallel between the melodic motifs of the piping tradition and the formulaic stock phrases of epic poetry. In *The Singer of Tales* Albert Lord and his teacher Milman Parry recorded and analysed a huge amount of epic oral poetry of the Yugoslav tradition. Parry defined the motif as,

> a group of words which is regularly employed under the same metrical conditions to express a given essential idea. (Lord 1960:30)

Inherent in this definition is the idea that the motif only exists under certain metrical conditions and that the investigation of these conditions and formulae will reveal the compositional techniques of the poetry, which is composed in this case in performance based on an oral framework. The

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42 For examples of non-piper compositions that sound traditional in the bagpipe modal complex, see tunes such as *The Centenary Jewel* (P. Cunningham) or *Nelson Mandela's Welcome to Glasgow* (B. Douglas).
motifs presented in this Chapter are similar to Parry's concept of the motif; in that they are only one part, albeit a significant one of the entire modal complex, and are meaningless on their own.

Samuel Bayard (1950) in his "Prolegomena to a Study of the Principal Melodic Families of Folk Song" says that it is a useless task to try to identify the individual motif in (ballad) music because they do not have boundaries set to them:

They are so naturally woven in that the exact limits of the interchange cannot be definitely set. (1950:111)

Perhaps this is true for the folk songs he studied. I do not believe this claim can be extended into bagpipe music. Bayard postulates that, if the analyst tries to define the musical motif they end up with a useless set of isolated single notes which reveal nothing. The motifs identified in this study of the canonical repertoire of competition are in fact concrete, and can be identified. I believe that this depends upon the largely literate nature of piping combined with regularised structure of the 2/4 march. The strict structure of the marches means that motifs can clearly be identified within the crotchet beat and, because the competition tradition does not allow for improvisation in performance, motifs can accurately be identified from the notation.

Bayard does stress, and here I agree with him, that the student of music should look beyond them and see the tunes in their entirety. Bayard sees
motifs as useful for the classification and grouping of material. Mode has traditionally been used to group related items in a repertoire and has been used as a categorising tool. Conversely, this thesis demonstrates that mode is useful as an analytical tool in understanding the fundamental properties of a cohesive repertoire. It is the motif and its function that offer a means to understanding modes and hence the modal complex of a repertoire that is derived from the musical idiom that its practitioners use themselves. This Chapter has explored the characteristics of pipe marches, and in the next Chapter, I explore some of the influences that pipers bring to bear on this music.
Chapter Four

The Performer’s Aesthetics
This Chapter deals with the competition piper’s performance aesthetics. Competition as the primary performance context for solo pipers greatly influences pipers’ aesthetics. These aesthetics exist in the minds and actions of pipers, and are often non-verbalised or referred to in metaphorical language. This Chapter draws heavily on discussions with leading pipers and reveals some of their key aesthetic criteria for performance and performance-related issues, including notions such as: heaviness, difficulty of tunes, phrasing and pointing, band versus solo tunes and judging. Competition has resulted in an aurality that informs a largely text-based tradition. These performance ideals, and in fact, most ideas about piping are shaped by what pipers call their ‘tradition’. Tradition is itself a problematic concept and therefore I shall begin with a discussion about how it is conceived.

**Tradition**

“Following this line of thinking [Alan Dundes’s definition of ‘the folk’], one can theoretically have traditions introduced and “invented” in a group as small as two people or as large as a nation. One can, generally speaking, experience traditions that emerge form any social encounter. The implication is that even educated “folk” such as professors or doctors have cultural traditions; use of traditions is not relegated to a level of society. Traditions do not have to be transmitted orally through generations either but can owe their multiple existence to short-lived social,
typically unofficial, uses of photocopiers, faxes, videos, and the Internet.... An identifying “folk” can be temporary, such as a group of friends, rather than being rooted in a region. The key in Dundes’s definition was that people needed to express, indeed vary (often updating and customizing), traditions recordable as folklore in their formation of a group. Folklore as a basis of identity-formation and social existence gained a rationale and a living, even dynamic quality in its image of continually responding and adapting to shifting social encounters in contexts of different times and places.” (Bronner 1998:42)

Tradition can be viewed in as many ways as there are ‘traditions’. Historically, the discipline of folklore has most fully engaged with the concept; shifting the interpretation of tradition as lore, as performance, as culture, and most recently as process. The old fashioned folkloristic view of tradition as a static mass of material has been replaced by the assertion of a dynamic process. It is this process, encompassing both performance and its underlying framework, that I seek to set this work within.

Barry MacDonald sees tradition as separate from culture, and tradition as existing within the relationship between participants in culture:

“I consider tradition to be a human potential which involves personal relationship, shared practices, and a commitment to the continuation - out of the past and into the future - of both the practices and the particular emotional/spiritual relationship that sustains them.” (Barry MacDonald 1996:119)
Dan Ben-Amos (1984) gives a concise account of the history of 'tradition' within folklore, emphasising the uncertainty of the term. In folklore studies scholars have:

"internalised, but not necessarily articulated, such a conception of tradition. Our use of the term [in one way], however, clearly reflects the idea of tradition as a folk canon." (Ben-Amos 1984:106)

He suggests that the oral narratives, songs and other lore are conceived as the cultural canon, and at the same time the tradition. He notes the dichotomy in folklore between mass mediated culture and tradition, proposing three historical "dichotomous pairs" that are "enemies of tradition":

(a) little tradition vs. great tradition;

(b) tradition vs. popular culture;

(c) tradition vs. creativity. (Ben-Amos 1984:107)

It is this last dichotomous pair that is most frequently debated in piping. Competition has given rise to an ongoing debate about the balance of tradition versus creativity in text-based piping. This debate is not only verbal, but is conducted through performance, with pipers negotiating their stance in how, and what, material they choose to perform. In this way the piping tradition is a continual process that is evolving in the minds of the piping community, through performance, debate and - crucially - results of competitions. From this position, 'tradition' can be viewed as a verb (as process), however it is normally used as a noun or adjective. Ben-Amos
and Barry MacDonald (1996) explore the use of tradition as noun and adjective and use the term to explore tradition-as-process. MacDonald goes on to detail the conceptual shift in understanding of tradition within the discipline of folklore, from tradition-as-lore, to tradition-as-process, and documents the use of the term ‘tradition’ as a synonym for ‘culture’. He takes up Rodger Abrahms, Kay Cothran’s and Barre Toelken’s use of tradition as the underlying grammar of performance; suggesting that to conceive of it in this way removes dichotomous implications and accounts for change:

"Taking my cue from him [W.E.H. Stanner], and re-emphasising that I am not using tradition in a taxonomic sense, I feel that the common-noun and adjectival usages of the word are far less descriptive of my meaning, than is the verb “to tradition.” (B. MacDonald 1996:122)

When viewed in this way, the concept becomes useful for the piping tradition in resolving the dichotomy between creativity and tradition. MacDonald stresses that the idea of tradition resides in the relationships between participants, demonstrating its use as a universal process (1996:116). I wish to emphasise tradition in this study as MacDonald has, and which is neatly defined by Cothran as the ‘context of context’ (Cothran 1973). ‘Tradition’, not only as the underlying relationships between participants in a culture, but also as the force that acts as a process through these participants. In this way
tradition encompasses both the modal complex and competition as the preservative context discussed below.

Central to tradition is the notion of "...a shared body of knowledge and belief, a conventional wisdom, existing outside of formal records" (Bronner 1998:48). Tradition is characteristic of a group's identity. The piping performance tradition has two distinct strands of repertoire — ceòl mór and ceòl beag. The process of tradition that results from competition has acted upon this repertoire in a more conservative way than in related Scottish traditions such as fiddling. Competition is dealt with as a concept more fully on page 283, however, in terms of the repertoire it is worth examining what effect this has had. The solo competition piping tradition is:

- hierarchical in nature
- canonical in repertoire
- slow changing
- a literate tradition where aurality is used in the service of notation.

This last facet of the piping tradition is the reverse of Niall Keegan's statement that "notation is used in the service of aurality"1 which is the situation for non-piping traditional musics in Scotland.

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1 This quote was taken from a paper called "Contemporary Performance practice in Irish traditional music" given by Niall Keegan and Sandra Joyce, at the American College Music Society Conference at Limerick City University, Ireland 2001.
The ceòl beag tradition has been less subject to the competitive influence than ceòl mór, with more composers and more change throughout the twentieth century. However, light music has still had its fair share of conservative restrictions, through competition. Donaldson (2000) discusses the early twentieth century ceòl beag innovators, and suggests a living tradition:

And so the light music of the Highland pipe, still little more in 1869 than a twinkle in Uilleam Ross’s eye, had become by the 1920s a mature and sophisticated form, rivalling piobaireachd in technical difficulty and by far outstripping it in creative vigour....

Here we see the performer community extending the repertoire, redesigning the genres, pushing out the frontiers of idiom, devising fresh approaches to ensemble, seeking out new and subtle refinements in pitch and timbre. A reasonable conclusion would seem to be that – left to its own devices – change was the normal condition of a traditional art form. Continuity, not fixity, was its essence. Stability did not mean invariance – it sprang from a deeper level than the text and worked in more subtle ways than the ‘educated’ sponsors of fixed scores could begin to comprehend. (2000:371-3)

In this view of the early twentieth century, the ceòl beag tradition is seen as a process. Donaldson contrasts this with the ‘fixity’ of the Piobaireachd Society’s notion of tradition. Today we have a highly developed ceòl beag tradition founded upon the creative compositions of these early composers.
and competitors. But examine the list of composers of the current canon of tunes and it is obvious that our tradition is not as vibrant as it once was. John MacColl, Willie Fergusson, Willie Ross, G.S. MacLennan and others have a claim to the majority of tunes in the canon. The late Donald MacLeod is the most significant modern-day composer, and Ronnie Lawrie is the only living composer with a composition in the canon of 2/4s. This is not the case with hornpipes and jigs, new tunes are often submitted at competitions, picked and played. Why not with the "2/4"? The tradition is becoming fixed with players sticking to the same tunes year upon year. Composers do not enter their tunes for fear of playing something the judges are unfamiliar with and therefore disadvantaging themselves in competition. This is a tangible product of the conservative nature of competition. More compositions are being composed now, but not in the traditional 2/4 competition March style. There is a glut of new hornpipes and jigs, often written using syncopation and very modern-sounding. The piping tradition, whilst conservative, is also highly cohesive and focussed, mainly because of the context of competition. Therefore it is necessary to examine the idea of competition that is expressed through the piping tradition.

Compétition

"The idea of musical contests is very old, and it would be natural that the most skilled players, especially such individualists as pipers tend to be, should meet, when they met at all, as rivals.... As
far as organised competitions for pipe music are concerned, however, we have already seen how these began in 1781.... Not until 1832 was it suggested that a competition for Strathspey and Reel playing might be included... Competitions for reels, strathspeys and quickstep marches probably started at the rural Highland Games which began to proliferate in the 1820s. (Cannon 1987:134)

Nowadays competition is the overriding performance context for the Highland bagpipes worldwide. The majority of bagpipe performances are competitions, either solo or pipe band competitions. Unlike other competitive situations, (for example see, Avorgbedor, Daniel 2001 for a discussion of competition and conflict among the Anlo-Ewe, Africa) piping competitions are devoid of conflict, and are a positive force for individual performance excellence. In fact, references to competition are few in ethnomusicological literature; it is an unusual performance context for music. Competition does play a part in other music-cultures (for example see Goertzen 1997, 2003; Avorgbedor 2001; Dudley 2003; Williams 2003) although with the exception of brass bands (see Taylor, A. 1983), it is not as fundamentally important as it is in piping.

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2 By conflict I mean serious physical and verbal fights, which do not exist in piping. There are arguments but not conflict.

3 This discussion of competition as context focuses upon current practice, however there could be interesting parallels with ancient competitive cultures such as poetic recitation in Hellenistic times.
Competition serves as a conservative force for the faithful transmission of the bagpipe tradition. It creates a closed loop system, with a hierarchical system of performers and a small number of judges who control which performances are successful and, over time, which competitors will graduate to their own ranks. This is a self-regulating, closed-loop system, the hierarchical structure of which could be represented:

Diagram 5:

In diagram 5 above, the letters P, A, B and C represent the Competing Pipers' Association (CPA) grades given to pipers, where P (Premier) is the top and C the lowest grading. The CPA is a body which serves the needs of competing pipers and promotes and regulates their members, the solo competitive pipers, worldwide. It should be noted though, that not all pipers are members of this association; it is not mandatory to be a member. In the CPA system, pipers progress through the grades from C to A. The B and A grades are tiered '+', '-', producing eight possible gradings for a piper: C, B-, B, B+, A-, A, A+, P. However, it is common to be upgraded from B to A,
without the intermediate tiers. The B grade equates to the Silver medal
standard of Piobaireachd playing, and there are B grade competitions for light
music. The A grade pipers are of gold medal standard and the Premier grade
is for the elite\(^4\) pipers, who all play in Senior\(^5\) competitions at Oban and
Inverness. Each piper has a separate grade for Piobaireachd and for light
music.

Closed-loop

This system, including gradings and the judges, is very effective in self-
regulation of pipers and is a closed-loop system. By this I mean that the
hierarchical nature of the graded competition system ensures that only the
best performers win prizes and go on to judge themselves. Each piper gets
his or her grade reassessed every year by the grading committee of the CPA,
and it takes many years for pipers to move through the grades to Premier. A
piper is usually only awarded a Premier grading after winning the gold
medal for Piobaireachd, or an event of similar stature for light music. In order
to win these events the piper has to conform to the tradition, and is evaluated
by the judges. In effect, the closed-loop nature of the system, i.e. being judged
only by people who were once P graded themselves, leads to only the most
faithful to the tradition progressing up the hierarchy. Furthermore,

\(^4\) I use the term 'elite' here only to signify the exceptional pipers in this grade. Pipers
themselves sometimes use this word to refer to the highest graded amongst them.

\(^5\) See glossary, Appendix 3.
competition organisers invite only well-known judges, who usually have themselves been Premier grade players, to judge the competitions. Through awarding prizes, current judges select the next generation of judges.

The discussion pipers feel happy with this arrangement, as Roddy MacLeod explains:

RM: ...it does give a comfort factor though; if you have a retired or a current player. But most often it will be a retired piper who’s judging the competition, someone who you’ve heard and they’ve had a good track record in competitions. You know they’ve got a musical ability because you’ve heard it, you’ve heard their performances and you respect their abilities in terms of delivering the full package of a performance themselves: With pipes, technique, musical expression. They have an understanding of what that competitor in front of them is going through when they’re standing in front of them...I think that, for my money, you can instantly make a connection with a judge who has got that kind of track record... There are obviously people who have got onto the judging scene that haven’t done that. And presumably, their avenue for getting into judging might have been through, attendance at Piobaireachd Society Conferences, and getting to their feet and talking knowledgably about certain aspects of piping, and perhaps even in these conference settings demonstrating their knowledge and some of their ability through piping. It tends to be nowadays that’s more unusual isn’t it really, you know from the days when you used to get people who were just members of the Royal Scottish Pipers Society for example, who because they were, were asked to judge, and some actually had the hard neck to accept
invitations to judge...so it is self-regulating as you say.  
(Discussions Roddy MacLeod: 11/11/2003)

Competition as a conservative force

"... I think that competition does tend to make a competitor play safer than he would normally do. I think he is playing for the prize rather than playing the expression he believes in. His main intention is not to make any mistakes, have a good instrument, know his tunes well and play rather carefully which sometimes of course means that we lose expression. And very often in competition we find that the person who does let himself go maybe loses a note or makes a little mistake here and there, and the difficulty then is weighing that against a more carefully prepared performance without any mistake." (MacKenzie, John in MacLellan, John (1978a:37))

The progression from young to old competitor and then, if deemed good enough, to elite piper and judge results in highly conservative attitudes towards socio-musical change. For example, 1977 was the first year that the Northern Meeting and Argyllshire Gathering first permitted female pipers to play in their competitions. The change in the rules of the competition, only transpired after the government passed the Sex Discrimination Act 1975

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6 The piping competitions at the Northern Meeting began in 1841 and the Argyllshire Gathering's in 1871.
Anne Spalding describes this fundamental change in an internet published interview:

Interviewer: What challenges do female solo pipers face these days?

Anne Spalding [AS]: I would like to think that females do not face challenges that are any different from male pipers, but this is probably a dream. There's a quotation that is still true today: "Whatever women do they must do twice as well as men to be thought half as good. Luckily, this is not difficult."...

Interviewer: You and Patricia Henderson [née Innes] broke the gender barrier at the Northern Meeting in 1976. How did that all come about?

AS: In late 1975 what is known as the Sex Discrimination Act\(^9\) was passed in the U.K., which meant that disallowing entry to the competitions on the grounds of gender would be unlawful. Before this, many competitions did not allow females to enter, and an application to play would be met with a polite refusal.

Strangely, Oban and Inverness held the view that allowing females to play would result in a huge entry. In fact, if memory serves me

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\(^8\) Anne Spalding is a competition piper from Dundee who has been competing at a high level for many years, both 'round the games' and at Oban and Inverness.

correctly, only Patricia and myself played at Oban, and I think four women played at Inverness that year. As a point of interest, at last year's Northern Meeting, 10 out of the 97 players were female, and only three of them were playing in the Gold Medal...

Interviewer: What are some of the worst examples of bias against females that you've seen?

AS: I think I try not to see any bias, but I know it's there. I have been told that I have "played awfully well for a woman" by one prominent judge at the Braemar games. But at least I got a prize for it!

Standing in the pouring rain at Oban one year I was told that "It's a man's world, you know." This from a judge before I played my March. Then when I'd finished I was called over and told by the same judge that I'd played a fine March. No mention in the prize list though!

Being sent to put on "a proper jacket on" was another instance. I could go on, but most examples I have to view as funny stories. What tops the lot for me is knowing that one year while playing in the Gold Medal at Inverness I had "the best legs and the best crunluath, in that order." (Spalding 2004)

There are many parallels between piping and the brass band movement. Sex discrimination is certainly found in brass bands. Wendy Picton (b.1964), who
was a very good young euphonium player in the brass bands of the 1970s, discusses the lack of opportunity for girls:

"I'd like to play in one of the really top class brass bands, like Black Dyke or Grimethorpe, but it's very much a man's world and you can't do anything about it. I don't think it's even worth trying. Maybe in ten years or so, things will change. I've never had any problems with lower section bands - they've all had girls in them before ever I joined.... It doesn't worry me particularly any more - I'm pushing on as a soloist. I've played now twice as a soloist at the Albert Hall in London.... That was my biggest thrill so far..."

(Wendy Picton in Taylor, A. 1983:214)

Gradually as society has changed so too have the brass bands and piping, perhaps though the conservatism of these movements slows change, with changes in society taking far longer to penetrate competitive and male-dominated traditions.

Conservatism is not only to do with the years it takes for individual pipers to progress through the hierarchy, but is also rooted in a fear of deterioration in the tradition. I have often heard older pipers express the opinion that the modern tunes or styles are inferior to those in their own heyday. Fear of deterioration in the tradition manifests itself in the value-judgements of pipers' towards change. Often new compositions are denigrated for being too modern and 'unfaithful' to the tradition. This view of two binary opposites; 'tradition' versus 'modern', is reflected in the early
social scientists’ view of tradition and modernity as contrasting, before the
concepts were resolved to “a conception of a gradual continuum in which the
two are conceived as mutually complementary social and cultural
phenomena” (Ben-Amos 1984:101). The following letter appeared in the
Piping Times and is representative of early pipers’ views on ‘modern’
composition:

“Dear Sir,

Your editorial in the July issue was very much to the point. It seems as if trick fingering, countless new tunes that
rapidly proceed to go nowhere and gobbledegook are going to be with us for a while. Perhaps it’s all a natural progression in view of
the increase in world wide piping that we now see. Perhaps it’s all the result of our craving for a new mode of pipe music that was
discussed in many issues of the Times some years back…”

(Timoney 1996:9)

Frank Timoney’s views are representative of the opinions of older pipers
upon modern tunes. Some younger players too, are not enamoured with the
style of new compositions, but on the other hand, there are many who take
great pleasure from modern compositions; many bandsmen especially play
them. The perceived qualitative decline in modern compositions may be
due to the increase in bagpipe music book publications. It is certainly easier

10 From teaching experience and insider knowledge.
now to publish a book, either oneself, or through a publishing company, than it was in the past. This has been aided by the development and widespread availability of new music-writing and word-processing software. Perhaps this is an area for further research not only in bagpipe music but for traditional music generally: does the increasing ease of publication of traditional music cause increased homogeneity of playing styles? This increase in publication may seem to lead to a fall in the qualitative assessment of new tunes, particularly by more conservative players. Many older collections contained carefully selected tunes that were recognised as the best in their day. The cost of publication, particularly in the nineteenth century, led to a natural selection of material. Nowadays, more collections are published, it is cheaper and consequently there are many more ‘bad’ tunes published. Personally, I do not believe there has been a qualitative decline in composition, I put the perception of decline down to increased publication.

This situation will become more complex as the internet allows even more immediate and cheaper methods of music publication.11

Occasionally new tunes are submitted for ceòl beag competitions, and this is usually done by the leading pipers of the day. In this way new compositions are accepted because they are in effect ‘sanctioned’ by leading

11 To some extent, the publication of online tunes is already well underway; the world’s most popular piping site www.piperanddrummer.com already publishes tunes from all over the globe.
authorities. Willie McCallum is one of the world’s leading players, and he recognises that there are boundaries to the types of tunes one can submit in competition, yet he is not afraid to do so:

SM: Given that there’s these tunes that we’ve been talking about [the canon of tunes] are there new ones being composed? What’s happening, are they not being written, or are they not getting played or what?

WM: I think, that, my own opinion is that, there is tunes being composed, but there’s not so many big, quality 2/4 marches being composed, if there are any, people are a wee bit reticent, to put them into competitions, because someone might say, you know, ‘that’s not a competition-style March’ and I’ve heard that, in the past. Not sort of aimed at myself, but I can remember seeing things written in the Piping Times and that. You know, ‘this is not a competition March’ or whatever.

SM: D’you think that’s because it’s not hard enough?

WM: Well, I’ll tell you, there was one year when, this goes away back, someone wrote about Renfrewshire Militia saying it wasn’t a competition March, and I think it is a good, tune, I don’t understand how someone can say; ‘it’s not a good 2/4 March for a competition’. I think one thing that has been noticeable in recent years, maybe with the likes of the Donald MacLeod competition,
people are going up there and they’ve got to learn some of Donald’s marches and they’re saying, ‘well I don’t need to stick to Knightswood Ceilidh or Donald MacLellan of Rothesay I can play other ones, and sometimes they’re starting to creep into the lists. At Inverness last year I played one of his tunes; The Glasgow Skye Association Centenary Gathering and I was quite pleased I put it in cause I thought, ‘at least I’m not going with the same list, there’s one different’, and it got picked to play, and it was fine, no sort of adverse comment one way or the other.

SM: The thing you’ve got to be sure of, is that you’re absolutely on the nail with it?...You couldn’t go submitting six new ones every year?

WM: Aye, well I think that’s true, I had played it quite a bit, and I was quite confident with it, again just the same as any other tune, and I just thought, ‘why not’. (Discussions Willie McCallum 24/11/2003)

Willie shows here that he is operating within a group consensus on the repertoire for competition, and that there is a ‘reticence’ amongst the performer community to submitting new compositions, for fear that they may not find favour with the judges – the guardians of traditional aesthetics. Furthermore, Willie emphasised in feedback from his discussion review that
the tunes must also be of a high quality for competition, which may affect the submission of new tunes. Competition has driven the use of urtexts in piping, for the purpose of standardisation, and this has also affected the shift in piping from oral to literate. One good example of this is the distinction is between 'ceòl cluais' (lit. 'ear piping') and competition piping that has survived in South Uist (Dickson 2001). Dickson emphasises that the aesthetics of Uist piping are ultimately and inextricably bound to the social and functional values of piping, as is competition piping today, "a performance's evaluation is influenced largely by its contextual value" (2001:239). Dickson suggests that Uist pipers do have a 'western aesthetic' as laid out by Alan Merriam (1964:261), but that the Uist pipers' sensitivity to context when evaluating their music is, by its sheer acuity, outwith Merriam's model.

A piper playing a competition-idiom Reel for a Scotch Foursome in an old-world céilidh, for example, would receive quizzical looks from the dancers because the tempo and melodic nuance would be regarded as unsuitable; and a piper playing instrumental puirt-à-beul on the platform at the Askernish games would receive equally short shrift for much the same reason. While this particular aesthetic quality can be attributed to all Highland piping in Scotland, it nonetheless illustrates in practical terms the relevance of functional context in South Uist. (Dickson 2001:237)

The fact that Willie realises that there is reticence about submitting new compositions, for fear of reprisal, demonstrates the effect of competition as a
conservative functional context within the wider Scottish competition tradition.

The debate surrounding competition and its effect on repertoire must take into consideration the example of the Piobaireachd Societies Set Tunes lists for the Piobaireachd competitions at Oban and Inverness. Every year the Argyllshire Gathering (Oban) and the Northern Meeting (Inverness) use a list of tunes set by The Piobaireachd Society. Competitors have to choose their repertoire from these lists if they wish to compete at Oban or Inverness. The following extract is from the rules of the Argyllshire Gathering 2003, distributed to competitors:

**Event 2 – SENIOR PIOBAIREACHD COMPETITION**

Competitors must submit **FOUR** from the following list of **SIX** tunes, **ONE** of which they will be required to play.

1. Spaidsearachd Bharrach * Tune No 7
2. Abercairney’s Salute * Tune No 12
3. Lady Margaret MacDonald’s Salute * Tune No 27
4. Salute to MacDonald of Staffa Bk 13
5. Sir James MacDonald of the Isles’ Salute Bk 14
6. Lament for Cluny Macpherson Bk 14

In interpreting tunes from the MacArthur MS publication performing text, competitors should have regard to the Preface to the Performing Text and should repeat the Urlar where indicated in the text.

...

With the exception of Tunes 1, 2 and 3 from the list above, competitors are not restricted to these settings and any other setting may be played. The Judges, however, may take into consideration the merits of such settings, their authenticity, and authority for such settings. Competitors are advised to give advance notice should they intend to include any settings NOT contained in either Staff or Editorial notes in the Society's Collections. Altogether different tunes known by the same or similar names will not be accepted as alternative settings.

[Capitalisation etc. as original] ...[from the next page of the rules]...

GENERAL RULES FOR THE PIPING EVENTS AT THE ARGYLLSHIRE GATHERING

...

7. All Competitors must appear and compete in Highland Dress or uniform...

The piobaireachd mentioned above come from either the MacArthur-MacGregor MS (Buisman and others, 2001) or The Piobaireachd Society's own published collections. Every year The Piobaireachd Society prescribes a list of
tunes such as the list above for each different level of ceòl mór competition - the Senior Piobaireachd, Gold and Silver medals. Every year pipers from all over the world learn these tunes, and they are known amongst pipers as the ‘set tunes’. There are essentially two opposing views on the issue of ‘set tunes’: 1) That the prescription of different tunes every year expands the competition piper’s repertoire and is a good thing for piping (eg. see Cannon 2004). This view is supported by the proliferation in the general canon of ceòl mór. Piobaireachd had been prescribed by the Highland Society of London in the 19th century, but a new benchmark was set by The Piobaireachd Society at their competition in 1903. They prescribed a number of tunes for their competitions and ruled that “only the versions of the tunes given in the Society’s books could be played.” (Cannon 1987:91). Supporters of the prescription of the ‘set tunes’ argue that before they were introduced, there were only a handful of tunes in the canon of ceòl mór. 2) Others (mainly competitors) claim that to prescribe tunes every year is conservative and parochial; forcing pipers to learn only the tunes that The Piobaireachd Society sets. Moreover, many object to the actual settings that they prescribe, and this has led to friction on numerous occasions, but most recently in 2003. The setting of the specialist MacArthur-MacGregor piobaireachd in 2003 has caused major controversy. Alongside the original MS in the MacArthur-
MacGregor MS, is a performers' edition edited by Andrew Wright. This sets out the tunes with the modern notational conventions, and makes some changes to the music itself:

... 

The music presented in the following pages is closely based on the original MacArthur-MacGregor manuscript, but has been adapted in certain respects to satisfy the requirements of present-day performance...

3. Regularisation. In many tunes, where a passage is repeated, the manuscript has slight differences in timings and/or ornamentation. In this performing text, however, most of these differences have been regularised. (Wright, Andrew in Buisman 2001:Preface to the Performing text)

It is this "performing text" that was prescribed in the Set Tunes for the Senior Piobaireachd competitions of 2003. As can be seen from the quote, the Piobaireachd Society set the tunes and demanded that they be played in a particular fashion. It is possible that this departure from the standard (Piobaireachd Society) settings of piobaireachd could be viewed as an innovative step by the Piobaireachd Society. However, I present this as evidence of the conservative nature of the competition system, not as an argument about the current degree of prescription.

12 A senior judge and respected member of the piping community.
There was a backlash from the competitors. In the following extract Roddy MacLeod M.B.E., the principal of the National Piping Centre and competitor in the Senior Piobaireachd events gave his reply:

Three of the six set tune settings prescribed for this year's senior piobaireachd competitions...are from the MacArthur-MacGregor Manuscript of Piobaireachd (1820), published in 2001...

Many senior competitors felt that the list was overly prescriptive, uninspiring and treated audiences to disconcerting programmes of obscure tunes and unfamiliar settings. The focus, they felt, was too narrow. They - and I - would prefer audiences to hear the 'best' players playing the 'best' tunes at senior events, albeit at the risk of reduced sales for the society's latest publications. Thus a hearty sigh of relief went up form senior competitors when next year's more congenial list of 'classic' tunes was announced...The issue is not the music, but the occasion...

The Piobaireachd Society Conference is the obvious place at which to test competition tune selections, and critically discuss the structuring of the list: a list with more breadth may be desirable, or a longer list that gives competitors greater personal choice...

To merely thrust unfamiliar work into showpiece competitions, and coerce pipers to follow scores for which they have little feeling, is more likely to see the music resented than warmed to. It certainly does audiences no favours. (MacLeod, R. 2003:5)

I experienced a range of different views on this subject from the senior competitors. The Honorary Secretary to the Music Committee of the
Piobaireachd Society was Malcolm McRae (a senior judge), and he replied to this editorial with a letter:

I thank you for this opportunity to respond to your editorial in *Piping Today* No. 6....it has been the frequent practice of the Music Committee of the Piobaireachd Society to recommend that previously unavailable, and thus unfamiliar, tunes be prescribed for these events. I do not share the view that these events are inappropriate occasions for airing unfamiliar material. For decades, these competitions have seen the first competitive airing of many unfamiliar tunes, and time and again the skill and musicianship of the players has produced memorable performances of previously unknown tunes, sometimes in unfamiliar styles...I believe that the Senior competitions at Oban and Inverness deserve the support of the piping community - audiences, players, judges and sponsors - as occasions for broadening horizons and pushing forward the frontiers. The vast majority of other competitions which cater for Senior pipers allow ample scope for pipers to present their favourite pieces (in many cases without much variation of repertoire from one year to another), and our music would be the poorer without the stimulus of occasional experimentation and innovation on the competition platform. (McRae, Malcolm 2003b:20)

The relevant point here is to recognise that these letters represent the high value placed on the tradition of piping and how best to control it. One significant point is that The Piobaireachd Society have consistently and painstakingly printed alternative settings in the notes adjoining their
published settings. Archibald Campbell, as others have since then, questioned why pipers are so reluctant to perform these alternatives:

"A new series of books was started after the 1914-18 War containing, for each tune, a detailed and carefully written editorial note giving all the authoritative alternative settings known to the editors. Nevertheless the mischief created by the Society, as it existed before 1914, seems still to have its effects, in spite of the annual advertisements of set tunes for the competitions stating in the plainest language that settings other than those in print in the new Series 1-8 [of The Piobaireachd Society’s publications] can be offered by competitors." (Campbell, A. 1958)

The reason often given for not playing the alternative settings is usually that competitors fear that judges will not be familiar with them, and thus playing an unusual setting jeopardises one’s competitive prospects. When one examines the parallel of ceòl beag, we find that even though there has never been a prescriptive tradition, pipers themselves have limited their repertoire to a small canon of tunes – as demonstrated in Chapter 3. This phenomenon should be explained by arguing that the conservative nature of competition actually creates the canon in the first place; rather than any competitor’s idleness in exploring new repertoire.

I have been told on numerous occasions by non-piper musicians that they find the degree of conservatism in piping bewildering. Explaining to

\[13\] Private comments, fieldwork notes.
them that pipers feel that prescription of repertoire preserves tradition; they usually respond that this is something that comes naturally to those who participate, without having to be told what to play. Piping is not the only music-culture that experiences conservatism as a result of competition. The brass band world also experiences set pieces for competition, and some feel that this encourages stagnation within their repertoire:

"I'd like to see the emphasis shifted a little away from contests. I'm not suggesting for a moment that we should abandon competition – that's what keeps the movement on its toes. But I would like a better balance between contests – and playing music, pure and simple.... I've been to entertainment contests for lower section bands where all of this progress seems to have passed them by – the programmes and presentation haven't changed much, if at all. I'd also like to see more effort made by the bands to join other musical groups – choirs, for instance. We still tend to keep very much to ourselves, I think." (Peter Wilson in Taylor, A. 1983:264)

Peter Wilson feels that competition stagnates repertoire, and seems to distinguish between competition performance and music. The picture is more complex than merely a binary dichotomy between competition as conservative and innovation (see 'tradition' above), prescription of the repertoire, gender discrimination, fear of change are only some of the effects of competition as context. Other factors underpin competition such as historical social hierarchies, patronage for the arts in Scotland, the public
image of the bagpipe, community identity, audience expectation and regional styles. Perhaps one effect over and above the conservatism of competition is the introversion of audiences, in the main, it is pipers who listen to pipers.\(^\text{14}\)

As a conformist and individualising force

Following from the discussion of 'tradition' above, there is a distinction to be made between the tradition and the individual in performance. The tradition has been defined as:

"...the rules by means of which a given context is made sensible, by means of which further contexts are made possible." (Cothran (1973:7-8) in Joyner (1975:261))

It is what pipers conform to and consists of the modal complex and ornamental technique, accepted sound aesthetics, dress code, canonical repertoire, general musical style, teaching lineage, and performance precedents. What makes each performance unique is the individual interpretation that is laid on top of the tradition. This individual interpretation is what is achieved by elite pipers. Essentially they take the tradition and give it new meaning, in performance. This is usually done through either the subtle rhythmic manipulation of canonical tunes in

\(^{14}\) For an interesting article on this subject see Taylor, J. (2004:19).
performance or through the alteration of tunes to produce settings\textsuperscript{15} that are associated with individual pipers. The alteration of the rhythms of tunes in performance leads to individual interpretation and can be associated with particular players. For example, Duncan Johnstone’s widely recognised rounder method of playing light music led to his being styled, ‘The king of jigs’. He also produced many settings which are still played today, most famously his version of Charlie’s Welcome. Particular settings of tunes such as The Cameronian Rant by Willie Ross and Donald MacLeod are now competition standards. Although lower-grade pipers can interpret and individualise tunes, it is only the alterations by the premier grade pipers that become absorbed by the piping community, and constitute a change to the tradition.

Individual, immediate aspects of performance are central to the study of traditional music, because of the aurally-derived nature of this music. Individual interpretation and reflection are where pipers, and all traditional musicians, concentrate their efforts. This leads to the question how do pipers individualise and yet conform with the competition tradition simultaneously?

Traditional and individualised interpretation

“Like many musicians...the majority of pipers [Uilleann] tend to base their style at least to some degree, on recordings of players

\textsuperscript{15} I use the word ‘settings’ in the same way as other pipers do: to refer to an individual piper’s version of a canonical tune.
from the past...generally keen to observe aesthetic considerations regarding ornamentation and variation, many of them strive to add further dimensions to the instrument and its music through their creativity and skill. I would suggest that the success and popularity of the leading players has largely been due to their ability to balance their commitment to tradition with their dynamism and individualised interpretation.” (Hannan, Robbie in Vallely 1996:88)

The above quote by one of the world’s leading Uilleann pipers shows that a parallel conception exists in Irish (Uilleann) piping of the traditional and individual performance. This balance varies from player to player, but the master will always have some melodic ingenuity that amazes the listener; whether in Uilleann piping, a short melodic/dynamic variation or in Highland piping (a more literate and therefore prescribed tradition) subtle rhythmic variation, ornamental change or other individualising performance trait.16

I have avoided the use of the word innovation in this section because other musicians (with the possible exception of western art musicians) would successfully argue that Highland pipers do not innovate in performance as

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16 There are many parallels between Irish and Scottish piping traditions, unfortunately too many to attempt to explore here. Comparative research in this area would be very fruitful, perhaps leading to conclusions useful to both traditions. My experience of playing both Irish and Scottish tunes has led me to believe that one of the characteristics of Irish tunes is that they move more conjunctly and stepwise than Scottish tunes. Scottish tunes appear to move more often in melodic leaps of fourths, fifths etc. Shapiro (1985) mentions this phenomenon in relation to Scottish song. Investigating this would be an interesting comparative project, and one which may be founded on the differing organologies of the two countries' national bagpipes, both of which I play and find to be very different to play.
they stick to the written score. Therefore I have opted to express this concept
as individual interpretation. One would hope that any musical performance
would allow the performer an individual interpretation. Indeed some would
argue it is essential for music to live. So this individualism becomes
absorbed into the tradition slowly. The famous compositions or settings of
tunes take time to work their way into the canon of competition tunes.
Certainly there are parallel conceptions in many musical traditions:

“The term ‘tradition bearers’ is perhaps a better description (than
‘source singer’ or ‘revival singer’ in common currency during folk
revival) of a relatively small group of singers who are genuinely
carrying on a tradition. Singing in a traditional style does not mean
a slavish copy or a lack of personal input or innovation but comes
from those who have immersed themselves in a tradition and have
the skills to carry it forward.” (Wellington, Sheena: sleeve notes to
CD Maureen Jelks: Eence Upon A Time LTCD1004)

Sheena Wellington emphasises the ‘immersion’ in a tradition, and this is the
same for piping; the pipers whose compositions are accepted into the
canonical repertoire are those who are respected and have clearly
demonstrated a commitment to tradition. On a simple level this is easy to
illustrate by examining the choice of tunes submitted by pipers for
competitions. The most recent marches accepted into the canon of
competition tunes are tunes composed in the 1950s and 1960s such as The
Knightswood Ceilidh by Donald MacLeod, and even then, these are seen as relatively recent by pipers:

Roddy MacLeod: ...tunes in Donald MacLeod’s books, are relatively new tunes. I mean Mrs Duncan MacFadyen and other tunes of Donald MacLeod’s, that are only really played at the Donald MacLeod Competition.

SM: Why are we not getting new compositions?

RM: There is just so many good 2/4s available, and they are in the classic [author’s emphasis] books, that people are told to learn from, and consequently, these are the ones that are heard, at competition, also there is a ‘fear factor’ as well. Because perhaps the judges don’t know them people are afraid to put them in. (Discussions Roddy MacLeod: 5/6/2003)

Pipers submit tunes that the judges most definitely know, and that come from ‘classic’ sources. This has the dual effect of reassuring the judges as they know the tunes, and of maintaining traditional aesthetics by selecting material from classic composers. For example Gordon Walker’s setting of the Strathspey Highland Harry is now commonly played. This is where he alters
the repeat of the first bar of the tune from the traditional setting, as published (unaccredited) in the Scots Guards book of standard settings volume 1, thus:

These individual marks are left on the tradition by the great pipers and become absorbed into the tradition. These also form the basis for identifying a player's style. Small differences can show where and from whom a piper learnt. For example I play what is known as the heavy throw on D movement in piobaireachd, whereas the majority of players play the light movement (see below p347, and MacLellan (1978b)). This trait identifies me with the Brown and Nicol school of Piobaireachd playing, as does a tendency to move off the low A note after a taorluath and onto the next melody note, faster than other piobaireachd schools. Many players have left their mark on piping and show how change is effected in the tradition.

**Competition as affecting musical aesthetics**

The concept of what is or is not *musical* is greatly affected by competition. Pipers' value-judgements are defined and maintained through competition. Here Roddy MacLeod describes practically how these value-judgements are disseminated:
SM: Is there a top international tier of pipers? Elite pipers?

RM: When you are a premier grade piper, the gold medal is a big dividing line in people's piping career. And it opens up the door to invitational competitions, the Glenfiddich, the Dan Reid, G S MacLennan, and also you begin to get asked to judge abroad and hand-in-hand usually with the judging, to sort of pay your way usually, is the recitals that you would do out there. And, very often in the New Zealand, Australia, Canada, these places, they're happy to invite someone who's won a gold medal because they think that that brings a certain level of status or authority to judging. But they want someone who's won it recently so that they can stand up and do the recitals and let the young people in that area or country hear what they've to aspire to win that.

SM: It is an international inspiration the gold medal?

RM: That's right and they want to hear someone who's recently won it, they want to know what that standard is. (Discussions Roddy MacLeod: 11/11/2003)

Maintenance of these standards is ensured by the judges and performing community, but there is a problem: competitions have to be judged, and judging is made easier by the clear definition of performance practice and value-judgements; in a word, by standardisation. Malcolm McRae, one of the
most senior judges in Scotland describes the performance standard he looks for:

"The music is most important, but obviously technical factors the instrument and execution will affect the music. If someone plays a really musical tune, but they can't play a crunluath movement, then that tune becomes unmusical. I try to give credit for the musicality of a performance, and if there are technical blemishes, like the drones going out of tune slightly, or an F becoming sharp towards the end of the tune, or the odd missed embellishment, then these are all factors to take into account. But those technical problems would not necessarily disqualify the player who otherwise had a good-going musical tune on a pleasant instrument. It's certainly not unusual nowadays for prizes to be given to people with technical blemishes in their performances...in those days [early 1970s] almost invariably a slight blemish in the ground of a tune [a piobaireachd] was the signal for the judges to put the specs up on the forehead and pass the cigarettes around." (Malcolm McRae, *Piper & Drummer magazine* 2003a:43)

Although this quote taken from a magazine interview is actually discussing the judging of Piobaireachd competitions, I make the assumption, based on my own competition experience, that the general aesthetic is the same for light music. This quote demonstrates that musical value-judgements are influenced by competitive considerations. As already stated, the judges are at the top of the competition hierarchy and they regulate the tradition through their judgements about piping competitions.
Judges

The issue of judging and who judges, is often contentious in the piping world. In the 19th century the majority of judges were from the upper, landed classes; today the majority of judges are retired competitors. There has always been an interesting gulf between competitors and judges, perhaps due to the nature of competition: The judges effectively hold power over competitors as they award prizes and make aesthetic judgements on a competitors performance. Historically, tension between judges and competitors, who were largely working class, was emphasised as prizes were more financially significant. A prizewinner in the 19th century may well have expected full-time employment through patronage from the landed classes.

Archibald Kilberry tells us much from his perspective on early competitions:

"The judges appointed [to judge the Highland Society of London piobaireachd competitions in Edinburgh in the early 19th century] were a large committee, numbering in 1822, for example, twenty-nine members. All were "amateurs," and few, if any, practical pipers. They were peers, baronets, lairds, retired Army officers, and Edinburgh professional men....

...it is not unreasonable to say that the piobaireachd has survived largely through the Army, and by means of the competition system. And the competition system has given with one hand and taken away with the other, for it has fostered playing for dead accuracy alone, to the sacrifice of expression. This is because so many judges have not been experts in this music. They have
known something about piping, and have been able to detect blunders, but their judging often has been negative, deducting points from a maximum for mistakes, whether accidental or not, and giving positive credit for nothing except, perhaps, for well-tuned pipes.... The efforts of this Society [The Piobaireachd Society], though limited in scope, have helped to inspire an interest in piobaireachd substantially greater than what existed at the beginning of the century. Competitions, too, show no signs of diminishing, and professional judges seem to have become more acceptable to the competitor, and to be appointed more extensively. (Campbell, A. 1948:8)

Campbell's statement that competition has 'given with one hand and taken away with the other' is well-made. The old system of gentlemen pipers judging professionals survived well into the mid-20th century. There has been a gradual change in the make-up of the judges bench. Former competitors began to judge piping and were welcomed by competitors for their knowledge grounded in experience. The assumption that judges who have been former prize-winners have substantially 'sound-knowledge' was affirmed by all the discussion pipers. As a competitor, I can affirm that the vast majority of contemporary pipers welcome former prize-winners as judges, to the extent that many avoid those few competitions judged by those who have not been major prize-winners. The limited availability of former

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17 My thanks to Roddy Cannon for pointing out some of the underlying assumptions in judging.
professional pipers can sometimes be problematic to competition organisers. This judging arrangement is also seen in Norwegian competition fiddle music, with former master players forming the judging panels:

"Contest judges help shape tradition by encouraging certain styles and trends and by doing so in ways that reinforce the values of the revival and of Norwegian culture in general. Panels of judges are composed of experts, many past winners in the performance medium being judges, but occasionally including academics or other people widely recognized as authorities. Relying heavily on past winners ensures considerable continuity in taste." (Goertzen 1997:176)

Judges are the most senior echelon in the tradition framework, and as Goertzen says, their decisions ensure continuity. Twice a year the judges on an official list of the Piobaireachd Society meet at the 'Joint Committee for Judging' seminars. They primarily meet to discuss the annual set tunes (piobaireachd) issued by the Piobaireachd Society, in an attempt to communicate all the various recognised styles of playing the tunes to each other. The set tunes are issued by the Piobaireachd Society each year and competitors have to choose from this list to play in the Clasp (P grade), the Gold medal (A grade) and Silver medal (B grade) piobaireachd competitions at the Northern Meeting and Argyllshire Gathering. These are the biggest competitions of the year for competitive solo pipers, and we all work all year towards the repertoire for these. The Joint Committee for Judging comprises
representatives from The Piobaireachd Society, the Competing Pipers Association and officials from major competitions. The 'Joint Committee' grades judges into an 'approved list' and the major competitions of the year are then judged by members on this list. This annual list of judges divides them into three categories – Accredited, Approved and Senior judges – based on experience and prizes won. They do this based on the following criteria:

Categories are as follows:

S – SENIOR JUDGE: - Those who have competed successfully at the highest level and can demonstrate sufficient knowledge and experience in judging – (eligible to judge any competition)

A – APPROVED JUDGE: - Those knowledgeable and experienced with notable success in competition (amateur or professional) but not necessarily at the highest (i.e.; gold medal ) level – ( eligible to judge any competition, normally with Senior judges, but not major competitions except with a senior judge or judges. )

Acc – ACCREDITED JUDGE: - Those with recognised knowledge and / or experience – (eligible to judge local games / competitions, but not eligible to judge senior events at major competitions)

(Extract from a personal communication from RWG Cameron 2005)

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18 The Scottish Highland Games Committee is provided with the list of approved judges annually, to encourage them to choose judges from this list. They do not always manage to use 'approved' judges, however, the competitions at Oban and Inverness always use Senior approved judges for all their competitions.
These judges will look for particular basic standards in performance and reward those competitors who meet these criteria, and provide good individual interpretations. The standards that are looked for in Piobaireachd are the same for ceòl beag. Even though the repertoire is different, the same levels of technical, sound and interpretation are looked for in ceòl beag competitions. One of the senior judges from the approved list, Norman Matheson, wrote an article delineating the characteristics he looks for in a performance:

The quality of the instrument is fundamental. Obvious inaccuracy of F and High G in particular in a tune with top hand dominance is so strident that it will in my mind rule out further consideration...as does uneven blowing in general...It used to be that a single choke or squeal would seal the fate of any competitor. Personally I think such transient and relatively minor faults less important and would not regard one or two such blemishes as in any way fatal...Accurate technique or finger work is also fundamental, and should be regarded as the foundation without which other considerations are irrelevant...The point is however that one hears many crunluath movements that are imperfect, admittedly often in a way that may be difficult to analyse precisely...and such imperfections should to my mind rule out major prizes or perhaps any prize at all...Connecting notes should be recognised and played as such, which is part of the wider issue of phrasing and cutting in general. There is little doubt that preparedness to be bold and to cut the short notes briskly has diminished over the years, in favour of careful (and duller)
interpretation, which unfortunately seems to be perceived by competitors as safer, and a likely requirement for success...

Notational Accuracy....

Players are free to play any recognised setting. Judges are expected to be familiar with alternative settings, but in reality may not be so familiar with any particular one that they could reliably pick up notational errors without the music before them. Until recently a note error, however minor, was enough in some judges' minds to seal a player's fate...Musical quality is far and away the most important consideration, although the most difficult to define...To aspire to the sublime is the grail of all serious musicians and talent in this respect is surely what should be rewarded in a competitive setting...The dominance of competition, although it no doubt underpins the healthy state of Piobaireachd playing today in terms of numbers, unfortunately does not encourage musical inspiration. Very many competitors put their faith in careful, note perfect performances devoid of more adventurous emotional expression. To insist on minutiae of notational accuracy fosters that attitude, and does nothing to encourage imaginative effort to make the music come alive; it rewards professionalism rather than musicality. (Norman Matheson, M.B.E. 1999, The Voice magazine.)

[On the subject of judging see also Swindle (1978).]

This quote from The Voice Magazine by a senior judge demonstrates the principal aspects of performance practice by which pipers are judged. Matheson states that competition with all its minimum requirements puts a pressure on the piper to play in a particular way in order to win the
competition, and he clearly states that competition breeds standardisation. However, there are performances where the technique, bagpipe sound and phrasing are all well executed, and the performance also has musical expression. In both ceòl mór and ceòl beag this is the 'grail' of competing pipers; to have a perfect bagpipe, technique and also to play musically. As Matheson acknowledges, competition ensures and raises technical standards, but does constrict the musical interpretation of pipers.

Pipers also expose their attitudes to performance by the words they use to describe various performances. For example, a player may be "missing technique" or be "sloppy". These are identified with a negative value-judgement of a performance. Inherent in the use of the adjective 'missing' is the concept that there is standard ornamentation and it should be present when playing, and that it is immediately obvious when it is not. If a piper has been taught badly, and has not learned the standard technique, then they would not compete at the top level. I know of only a tiny number of pipers who have successfully re-learned the correct technique after playing with bad technique.

The use of the language to denote 'missing' technique, or negative value judgements about technique from pipers themselves demonstrates the accepted notion of what constitutes good technique. Early musicologists such as Cecil Sharp and Annie Gilchrist of the Folk Song Society of Britain described pentatonic or hexatonic scales as 'gapped scales'. By doing so, they
foster negative value-judgements about traditional music that differs from the mainstream seven-note scales. These types of implied judgements are promoted through competition and continue to be expressed through the language of pipers. For example, there is a mental state which requires preparation for competition. Many players talk about "having my competing head on" or being "being focussed". If someone makes a mistake in a performance, "they went off it". These statements characterise the standardisation inherent in competitive musical traditions. Mental preparation (as well as practice) is needed, in varying degrees in different individuals. I have found that it is very easy at the start of the season (around May), when I have not been out competing, to let my mind wander during performance, perhaps looking away at other people surrounding the platform, or trying to ascertain what the judges might be thinking from their facial expressions. This is decidedly unfocussed, and as the season progresses I find it easier to ignore external influences and concentrate on the music I am playing. In other words I am more focussed and practiced: I 'have my competing head on'. This distractedness, early in the season, is the result of nervousness, (and often, in my own case, unpreparedness) and to overcome this fear of competing, I do more competitions. This might seem slightly masochistic but I know that I am not alone in my experience.¹⁹ I have often

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¹⁹ One piper told me [personal notes] that he once heard the master player, composer and
heard pipers say "if only I could play it like I did at home!" or similar statements. Willie McCallum also considers mental preparation as important as actual practice, this preparation involves total concentration: "it’s more note errors, and making sure that at every stage of the tune, you’re completely on top of it. As far as the concentration’s concerned" (Willie McCallum Discussions 24/11/03). The pressure, mental preparation, close adherence to the text, rigidity of ornamental practice are aspects of a competitive music-culture that has to be evaluated by judges.

Why do competitive pipers continually strive for the good competition performance when there are so many other more liberal and inclusive musical traditions to play in? This was an aspect of competition that often arose during the course of fieldwork discussions. Discussions continually emphasised these testing contextual issues, so it was necessary to ask why we compete at all?

The answer is complex but revolves around five main factors,

1. The personal challenge

2. The prestige resulting from competition success

3. The love of the music

4. A continued sense of the preservation of tradition.

teacher P/M Donald MacLeod, (one of the most successful prize winners of the twentieth century) declare upon his retiral from active competition his amazement at the stress he had put himself through for the last thirty years. I can think of numerous occasions when players have suffered so badly from nerves that it has ruined their performance.
5. There are limited other performance opportunities.

Personally, I have found that these factors are present in other performing contexts, such as my experience playing in the traditional group Back of the Moon. This group performs internationally in varied concert settings. This gave me another perspective on competition piping and other types of music, and I find both contexts stimulating and challenging in different ways.

Because competition is against a peer group at whatever level one competes, are purely related to prestige and reputation. The financial rewards of piping are of little or no consequence. The prize money available at the majority of competitions is small, so pipers are not financially motivated. There is generally little or no audience for Highland games competitions or even indoor competitions, and any audience often comprises retired competitors. Thus, success or failure is recognised by the peer group of competitors. It was emphasised in discussions that those who remain in competition piping are motivated by a love of the music, over and above their reputations. I am sure there are pipers who are primarily motivated by competition, the music taking second place, but I feel that they do not remain

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20 I played with this group from November 1999 to January 2004, recording two albums, playing hundreds of concerts, and teaching at summer schools and workshops. We toured Europe and North America, but particularly in Scotland and British Columbia, Canada, playing at festivals such as Sidmouth Folk Festival, Vancouver Folk Festival, Celtic Connections etc. For more information see www.backofthemoon.co.uk.

21 There are one or two exceptions, for example, the prize money for first place at the Glenfiddich championships is usually £1000. However, no competition I have ever heard of has ever approached the levels of financial reward that say an international piano competition would award - £5000 or more.
as competitors for long, raising the question: is peer-group competition an end in itself? Alternatively, is it perhaps that competition as a function in piping exists to serve tradition? I suggest that competition developed and survives as the primary performance context because it serves the continuation of tradition in piping most effectively. In common with the other traditional musics of Scotland, piping is a tradition whose bearers feel a strong commitment to passing on as faithfully as they can, and therefore probably the individual piper is more critical of his or her art, than is the peer group. We are in one sense competing against ourselves, much like this Irish fiddle player whose motivation to perform comes from within:

"His eyes are closed, he is not playing for us. Tunes do not come in neat pairs, jigs and reels repeat, spilling into one another. He is finding the groove of this violin and giving his musical mind a stiff test...performing only for his harsh inner critic." (Glassie, Henry 1982 in Cowdery 1990:11)

In conclusion, competition as a lifelong process affects pipers in many ways. Through peer-group judging and a hierarchical grading system, competition is a closed-loop system that is self-regulating. Competition also affects the repertoire chosen by players with the result that musical change is very slow. It remains to be seen if other competitive traditional musics are slower to change than more liberal traditions. In addition, competing shapes pipers' musical judgements in general, dictating our value-judgements about music.
Competitive tradition breeds conformity and standardisation but amongst the elite pipers this conservative force in performance practice actually leads to individualised interpretation. Individualism is expressed not only through the fingers, but as demonstrated in Chapter 2, in the sound pipers produce. Finally, I suggest that competition as a process, developed and survives as a positivistic and effective way to preserve tradition.

**Phrasing and Pointing**

Almost all top-flight pipers have an individual style and this is something which is assimilated through the early years of their playing. Their style includes individual characteristic methods of phrasing and pointing tunes, which is a tool in their performance for creating and maintaining an individual identity. Angus McColl was taught his light music by his father and his father tried to instil the phrasing into Angus’ playing:

> AM: My father was always, 2/4 marches were his thing, and he used to drum it in, you know, hold the E at the end of the second bar, or whatever it was, then away with the next bit. But he was always on about ‘making wee tunes within the tunes’, you know, just wee phrases, like the second part of Leaving Lunga, you could play:

[The arrows ![denote the sung emphasis, with longer arrow stems denoting greater emphasis. The curved lines ![show phrases.](image)](image)


but he was sort of: [Angus sings through showing that small phrases can be made within the tune]

AM: And then the answer:

Leaving Lunga (answering phrases)

AM: You know, you could do [sings the same phrases again, slower, and with far greater emphasis on the beat notes]:

Holding that big long E, but it was more:
It's nice wee phrases within the tune...trying to make music out of it. (Discussions Angus MacColl: 15/02/2002)

In the above example, Angus MacColl clearly demonstrated how his father taught him to phrase 2/4 marches. He shows that by slightly emphasising the long note at the end of a phrase, and drawing it out, one can make music within the tune. He identified negatively, overemphasis of the beat notes; and showed an awareness of the contour of the melody as contributing to the shaping of the phrases. As is evident from this discussion, phrasing is a particularly personal and highly developed skill amongst players of Angus's calibre. To the sophisticated listener, different schools of phrasing style are still clearly evident today.

In actual performance, no piper I have heard plays the note values as represented on the page; the dot and cut relationship is greatly emphasised. Furthermore, in a discussion of this kind, Seeger's dichotomy is very evident; in that it is difficult to translate musical concepts into words. That is why in this section I have used musical examples, to be found on the CD of musical examples (see Appendix 2). I asked pipers what they felt about phrasing and
pointing, deliberately focussing the discussions upon specific musical examples. Here is Roddy MacLeod:

**CD of musical examples, Appendix 2: CD track 15.**

Roddy MacLeod: [musical example of first part of *Arthur Bignold of Lochrosque*].

That’s it isn’t it?

SM: Aye

RM: Isn’t it the (third part that a lot of problems arise.) [plays third part on chanter]:

But some people don’t time that awful well in that third part, and I think when you’re teaching people that are.... I think it’s just beginner pipers really, find that part [difficult].
SM: Can't get the D back down to the G cleanly and fast enough.

RM: And then in the last part [musical example] I've noticed just, when I've been teaching people, they get crossing noises and things like that.

SM: So it is actually a wee bit harder that, there are elements in that tune that are.

RM: It's easy the first couple of parts and then it's a wee bit more difficult at the end but, quite a melodic tune, I think it's a nice tune.

SM: Yes, it's a nice, nice tune.

RM: That's maybe not specific enough.

SM: See the way you played it there, how do you imagine the phrasing, the pointing to go in that tune? [Simon sings example] Is that what you're going for that D? that, or, what's the sort of, what do you imagine?
RM: I really just think about the long notes there the E and the C. I've been told, you kind of hang on to these notes and the rest kind of, just slots in between I suppose. [musical example of first part]:

I suppose if there is something going through my head, that's what I'm thinking of is the long notes I suppose. It was also, when I was being taught, and I suppose a lot of people were, you know you are taught with this notion of the question and answer phrase, you know, kind of calling and answer in a way. So you want to balance these phrases out. (Discussions Roddy MacLeod: 5/6/2003)

Again, Roddy shows that each tune requires a different approach depending on its particular contour and rhythm. There are very subtle phrases that pipers can draw out, by slight emphasis here and there in tunes. In the example above, the downward direction onto the initial E and C notes, combined with their long duration (dotted quaver), aids the piper in phrasing decisions. Moreover, in the second phrase of the example above, the D and B notes are emphasised in answer to the first phrase. This is a good example of how a double tonic structure facilitates phrasing, particularly in A/G mode tunes. All discussion pipers agreed that the concept of question and answer phrasing is fundamental in playing 2/4 marches. Essentially, phrasing is
achieved through very subtle manipulation of note durations in performance.

To phrase a tune well involves making decisions about how to stress question and answer phrases in performance. Furthermore, as can be seen from the example of *Leaving Lunga* above, phrases are not always in two-bar sections. Some composers employ one or one-and-a-half bar phrases, and again this is determined by the use of contour and rhythm. Longer notes usually signifying beginnings and endings of the phrase. Through phrasing in performance, new interpretations of well-known canonical tunes are realised.

Chris Armstrong and I discuss phrasing, referring to the tune *Brigadier General Ronald Cheape of Tiroran*:
SM: Brigadier General Cheape of Tiroran?

CA: Very musical tune... that's why I play it. And it's probably, it's not as popular as some of the other ones right enough, I
wouldn’t say. You wouldn’t hear it all that often. I don’t think it’s the most technical tune in the world.

SM: It’s just a very musical tune. (singing example of the tune).
Are you playing it this year?

CA: Yup.

SM: How would you play the first part? D’you want to just play that on the chanter? [Chris plays the first part on the chanter twice through]:

SM: Yeah, that’s a good tune. How were you phrasing that there? Like, how were you approaching the phrasing of that tune? Would you say that you’ve got a standard way to phrase now, in your own style?
CA: No, I wouldn’t say it was standard no, each tune I treat differently. For example, that tune ehm, the way I would play that tune, would be just to get, the way that would feel would be the most musical. Which makes most musical sense to me.

SM: And is that something that happens in the moment of playing?

CA: No, I mean, I think when you first, for example eh, if I was to go away and learn another March, I wouldn’t be able to, well, I’d be able to express it, but it wouldn’t be as well expressed as what it would be maybe after I’d played it for a bit. I don’t think you just pick a tune and just express it, just like that you know. Likewise, you know, if you don’t play a tune for a while, and it’s the same idea in piobaireachd, you know. It’s the same thing with the light music.

SM: You mean you’ve got to like, work yourself into it, become used to it, and find your own?

CA: You’ve got to find the tune’s, the stresses and things like that within the tune. To make it musical I think.

SM: And that takes time, and getting used to it?
CA: Yeah, and just playing the tune you know. (Discussions Chris Armstrong: 4/6/2003)

Chris says you have to spend some time with a tune, practising and performing it before it becomes (as I put it) 'your own'. In the example above, the emphasised notes are in part shown by the direction of the melody and by long durations. The emphasised notes generally are approached from above or below, and they correspond to the main structural tones of the tune. The manipulation in performance of a tune like Brigadier General Ronald Cheape of Tiroran can take months to develop. For the discussion pipers, learning from the written score is not enough, this has to be balanced by the players' aesthetic ideas, in order to produce their interpretation. I have tried to do this myself in performance. For example, I once was told that Donald MacLeod used to actually stretch the 4th beat of some bars in strathspeys because it made the following 1, downbeat sound stronger and more emphasised. I now do this without thinking and it was a key development in my own playing that arose from listening to other performances. This stretching of certain notes results in what pipers call a more 'musical performance'.

Pipers often talk about 'phrasing' and 'pointing' in the same breath, the two concepts are linked and are key to performance. If something is very 'pointed', the dotted notes are given more emphasis than the written note value. And vice versa; in a very pointed tune, the short, cut notes become
very short. For pipers the antonym of pointed is 'round', and a performance
where the long-short (or short-long) ratio is more equalised results in a
rounder performance. So pipers develop a style that settles somewhere
between the pointed to round aesthetic continuum, depending on their
individual aesthetics. Therefore, pointing is not only a statement about which
notes are written long-short (or short-long), it is also a key aesthetic of
performance that pipers can use to express their individual interpretation.
This is separate from the aesthetics of phrasing, which refers more to the
shape of the tune than the degree of short-long combinations. Pipers have no
control over the dynamic volume of the instrument and each note is roughly
the same volume (the higher notes are perceived as quieter amongst pipers).
This has resulted in pipers concentrating their efforts on the manipulation of
note lengths, in order to shape a tune into separate but interdependent
phrases. The result of this is different styles of phrasing, in both ceòl móir and
ceòl beag. Through years of playing and as a player's reputation grows, they
become associated with a particular style of phrasing and pointing that is
derived from their own experience and teaching lineage. Phrasing and
pointing of tunes become directly related to the cultural context and can
express in real-time performance certain culture-specific ideas. The following
two substantial extracts come from the same discussion with Chris
Armstrong:

CD of musical examples, Appendix 2: track 17
SM: *The Clan MacColl?*

CA: That's well played [frequently played] aye, that's one I'm playing this year as well.

SM: ... Well, how would you talk about that tune?

CA: Again, it's just a, in my opinion, it's just a great tune. It's got some really nice bits in it, that you can highlight, you can pull it out you know.

SM: Give me an example of that?

CA: [example of first two parts of *The Clan MacColl* on the practice chanter] It's just a nice tune to play, you know.

SM: Do you think, in that first part [demonstrates phrasing through singing] is that D one you would go for?

CA: No I wouldn't no, stress that D too much. [plays chanter]
go for the off beat on G you know.

cause you wouldn’t do it on the first C too much either, you know; it’s that question and answer type thing, so you get the upbeat on the D. [gives example of the upbeat]

[breathe] You get the upbeat on the D. [example of the first part of The Clan MacColl, using varying arrow sizes to denote pointing.22]

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22 I have not included all the arrows that would show the whole part’s pointing to ease clutter; the effect is shown here and is on the CD of musical examples, track 3.
SM: Some players would not go for the up beats really much at all, and that’s a different style of pointing really.

CA: Yeah it is.

SM: Some players would play that, [gives singing example emphasising strong left beats] So do you think the contour of the tune itself actually shows you where to hold the notes?

CA: Yes, aye again, it’s a similar thing as to what we talked about in Brigadier Cheape cause you’ve got again, you’ve got a bit of space in this tune. In that first bar and that third bar. [sings example] It’s not crammed full, so you can afford to come and go a bit you know. (Discussions 4/6/2003)

Further extracts with Chris Armstrong discussing phrasing and pointing.

CD of musical examples, Appendix 2: track 18.
SM: Good tune, in terms of pointing, how would you, do you have anything in mind when you approach playing it or do you just, go through.

CA: That tune's very much an offbeat tune. So for example the way, I mean, I wouldn't go

[Musical example from Chris Armstrong of over-pointing [see glossary]]

I wouldn't go like that, that's just over exaggerating there.

SM: You're holding the on-beats there.

CA: The way I would tackle this tune would be to play the offbeat as well. Not maybe visually, but just in my head.

[Musical example from CA, playing the tune whilst beating out 4 in the bar]

You can see that the low As are coming in on the offbeat, you know. [Another musical example].
SM: Uh huh, that’s right, and also what you’re doing there is you’re kind of stretching some notes. I mean just generally, I am a piper so I understand it, but if we’re going to talk about it and play it as well, it’s good to make it clear what we’re talking about. You’re stretching some notes that eh, but without taking, running over into the next pulse?

CA: That’s right aye, still keeping it within that stringent

SM: Framework?

CA: Still coming in on the beat. I think you’ve got to do that, I don’t think you can actually, you can’t, I don’t think you can mess about with the beat. [emphasis added] You can mess about with the tune, you can come and go a bit with the rhythms within the tune but you can’t move the beat to suit the tune.

SM: And the way you’re playing, the beat that you’re talking about is actually, there’s really four beats in the bar?

CA: That’s right; there’s very little room for movement, if you’re playing it to that four [demonstrates the four pulse].
SM: Yeah.

CA: If you’re playing it to the two, you do play it to the two, obviously when you’re marching. Which maybe gives you a wee bit more leeway, than what I just played with the four, right, but there’s very little room for leeway when you’ve got the four beats there. Because you’ve got the four, you know, it’s taking up.

SM: It’s coming in.

CA: That’s it, it’s got to be there. So you don’t get a lot of room for movement.

SM: But you could, in theory, you could play like,

[musical example from Simon on chanter, with some singing, with the four beats in the bar]

Now, what about this?

[Simon musical example emphasising long notes] What about that? What am I doing anyway?

CA: Mmm, I think that’s just like, it’s taking the flow away from the tune you know. To me, it’s just, pointed in the wrong place.
SM: It’s pointed in the wrong place. Right, I mean I did that deliberately.

CA: Aye, I know that, I know that. To me that’s just like, stretching it all out of proportions, it’s not the way it should be, it’s not musical. [emphasis added]

SM: Right. right, so how does like, where would you say you got you’re ideas about how to play light music? Who, is it listening and who taught you?

CA: Well my ideas used to be very different. Because, originally I started with the pipe band, right, so it would have been:

[Chris demonstrates on chanter how he used to play]

That’s the way I used to play. Because it was the pipe band idea. But then I went for, to, probably originally started when I went to Alasdair, Gillies for lessons you know. That’s a good maybe eight years ago or more.

SM: When he was still in Scotland?
CA: When he was still in Scotland, just before he moved away actually. Ehm, and that's where it started you know. Well I went to Alasdair, I can't remember it was maybe a year-ish,

SM: Something like that?

CA: Six months to a year, it wasn't a long time you know.

SM: It was just to get the gist?

CA: It was just to get the gist of where to go, because it wasn't happening, well I'd better do something about it, so then I thought to myself, well who's the greatest light music player there is? Got in contact with Alasdair Gillies, you know, for me, he was the greatest light music player that there was you know at that time, you know. And then from there, he sort of got me away from that sort of...heavy on-the-beat stuff, you know which is not right. I don't think.

SM: It's not a way to win prizes either.
CA: It's not so much that it's not right, because it is right in its own respect and it works well for pipe bands. I don't think it works in solo playing.

SM: No.

CA: And he sort of got me away from that thinking, that way of thinking, which was great you know. And then I think there was a period of time when I went too far the other way and it's sort of come back again and it's in between the two of them.

SM: You mean you were playing your marches like strathspeys for a bit? (laughs)

CA: No, obviously not quite as bad as that. The problem with playing on the offbeat is that you've got to be careful that you don't go too fast. You can lose it and can start playing everything at a hundred miles an hour, because you don't have that 

[stamps foot to signify strong beat]

SM: holding you back. Strong.
CA: Holding you back. The strong beat. So you know, I think I probably went through a phase when it was probably too, everything was quite fast... But I wouldn't say that now I wouldn't say that I play the same way as Alasdair does but.

SM: No, no, I mean you've got your own style now.

CA: I don't think that it's as far towards the offbeat, maybe as Alasdair plays. He plays more towards it, but you know, that's works for him, and I like the way he plays.

SM: So now you're solidified in your playing style, and you're choosing tunes that display that?

CA: Yeah, probably, without consciously thinking about, aye.

SM: When we were going through that list, you're going to me [i.e. 'saying to me']; there's tunes there that you wouldn't play? Even though you think they're nice tunes, John MacFadyen of Melfort they don't display maybe your style at its best?

CA: Could be, I think, could be.
SM: I mean, I don’t know, I don’t want to put a label on it.

CA: could be, you know, I’ve never really thought about it. Just in the respect that it doesn’t suit my fingers. It doesn’t feel comfortable playing that tune. That’s the only thing that I can describe it as. It’s hard to put your finger on it.

SM: I know, it is. But in some senses though we don’t have to, because we both understand what you’re talking about. (Chris Armstrong Discussions: 04/06/2003)

Chris shows in the examples above some highly developed aesthetic notions of pointing and phrasing. In particular, in The Clan MacColl, Chris demonstrates how it is possible to point the upbeats in a March. In the example above of the first part, the emphasis that Chris places on notes throughout the tune is more uniform than say in the examples of Roddy MacLeod above. This is due to their different individual styles. Chris identifies that there are many different approaches that could be taken to playing the tune, depending on individual style. The most interesting element in phrasing and pointing, is not how it is achieved; but the value and significance attached to these minute variations in note length. Furthermore,
The ability to understand phrasing is a learnt skill, that pipers can take years to learn. In my own experience, the manipulation of phrasing is a very subtle listening experience. To be able to tell the difference between players, can take years; and this is a possible reason for bagpipe music lacking audiences: the performance practice is more narrowly defined than in other Scottish traditions, so that to the novice listener, styles and interpretation are less noticeable than in other traditions.

Chris Armstrong clearly has mature notions of phrasing and pointing. He manipulates the pointing of the tunes to his own style, which is derived from teaching from Alasdair Gillies, and developed later himself. He shows that phrasing and pointing must not interfere with the steady pulse of the tune. This development of his style has crystallised now and impacts upon his choice of material; verbally expressed as 'choosing tunes that suit my fingers'. Repertoire choices combined with phrasing and pointing decisions about how to play tunes, results in a performance that expresses Chris’s identity as a piper. This is why phrasing and pointing of tunes (like their individual sound) is so important to pipers; it gives an identity and individualism to their performance.

Heaviness

In discussions I identified the descriptors heavy and light as being particularly important to solo pipers. These descriptors are regularly used by
pipers, in various contexts, primarily in relation to ornamentation. For example, there are two main styles of playing the throw on D movement in piping. These are distinguished verbally as ‘heavy’ and ‘light’. The heavy one involves more gracenotes and gives a deeper, rippling sound than the light throw. The throw on D can be played from any note of the scale:

heavy light

The use of the word ‘heavy’ to describe the more complex throw shows the association of ‘heavy’ with ornamental complexity that is reflected in the aesthetic judgements on repertoire. Both methods of playing the throw are acceptable, although the light version is by far the more common one worldwide. For a brief survey of the origins of this movement see MacLellan (1978b), in modern piping, the use of either is a matter of taste.

The terms ‘heavy’ and ‘light’ have long been associated principally with bagpipe ornamentation. In 1922, George MacKay of Edinburgh wrote a letter to the Oban Times, complaining about the decline of technique:

Pipers nowadays are ‘made’ as if by machinery wholesale at shortest notice so to speak, and pipe bands spring up like

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23 See glossary of piper’s terms in Appendix 3.
24 Today, all throws on D are written as light throws in pipe music, but it is a stylistic decision as to which a piper plays. It is common practice not to play the heavy throw in pibroch. Adherents of the Balmoral style of ceòl mòr playing do play the heavy throw, as I do myself.
mushrooms in the night. This cannot be conducive to good playing...Let us take just one note [or ornament], the ‘Taorluadh’, by way of illustration...The prevailing idea in regard to this important note seems to be, that a ‘dab’, so to speak, is all that is necessary in the making of it. There could be no greater fallacy...The deficiency is not by any means confined to beginners; among very good players the notes are seldom made distinct enough, the detail not being sufficiently emphasised to give them any meaning or to indicate their character.

The old ‘champions’ were most particular as to this, and it was considered a serious defect to be ‘too light fingered’, as they termed it.

The minor music, marches and reels, is generally played too fast. (MacKay, G. in Donaldson, William 2000:362)

This letter shows heaviness as a favourable aesthetic and prerequisite to fine performance. Furthermore, one’s technique can be heavy, but also, tunes can be described as ‘heavy’. Heaviness exists in the pipe band world also, and heaviness is associated with traditionality. In his discussion of ensemble pipe band performance, Jerry Cadden instinctively uses this term, as a binary opposite to new pipe band medley tunes:

In speaking of the practice of “ensemble” in pipe banding, most musicians concern themselves with the competition medley, not with the more traditional MSR tune grouping. Though ensemble judges are present in both competitions, originality and musicality are more easily discussed in an arena that is known for original
composition [the pipe band medley] rather than "heavy"

traditional tunes. (Cadden 2003:footnote 28)

So, what is meant by 'heavy'? To answer this I turned to my fellow pipers and discussed it with them.

Willie McCallum has clearly identified a different style of playing depending on the tune. He usually opts for heavy tunes for competitions because he feels they suit him and his playing. In the extract below he determines how the tune should be played by a mixture of internal analysis of the tune and experience. Competition players usually identify heavy tunes as the standard for competition, because they display their abilities well. I asked what 'heavy' meant to Willie McCallum, one of the most successful and highly esteemed pipers of modern times:

SM: Is that a factor in terms of how heavy a tune is? What does heavy mean to you?

WM: I see [a] heavy [tune] as one that's got a lot of embellishments and a lot of short notes, that have to be cut, but not too much so that you can't hear them. So it's eh, I see heavy in terms of the quality of technique you need to play it, so you know if you think of Stirlingshire Militia that's a heavy tune if you think of Donald MacLean's farewell to Oban that's a light tune. You know, because, there isn't the same pressure to get the technique absolutely right, there are certain tunes, if you don't hit the technique right at the right time, then somewhere along the line the whole tune's going to
be out of sync if you don’t just nail it on the beat or whatever; so I see heavy, as on technique [i.e. heaviness relates to technique].

SM: So, Abercairney Highlanders again?

WM: Fairly heavy tune, and quite hard tune to manage musically as well. (Discussions Willie McCallum 24/11/2003)

Willie describes *The Stirlingshire Militia* as a classic, heavy, big tune, a favourite of his. A heavy tune is a tune that uses dense ornamentation. It is not a matter of what ornamentation is used; but of how dense it is. Many 2/4 marches use the higher level ornaments such as grips, taorluaths, doublings and tachums (see glossary in Appendix 3). Indeed some of the simplest tunes use these complex forms, for example: *The Siege of Delhi*, here is the first part:

**The Siege of Delhi**

![MUSIC_GRAPHIC]

As can be seen there are a lot of doublings, grips in this tune, yet there is enough time even for a beginner to play them; they are not too densely spread
through the tune. Compare this with the first part of *The Stirlingshire Militia*, a

tune that Willie McCallum identifies as heavy:

![Musical notation image]

There are more grips in *The Siege of Delhi*, but fewer melody notes, and

consequently more time in which to play the grips. So as Willie says, if you
can:

WM: ...put the embellishments in place I think the rest of it plays

itself, I think it does anyway, I mean it’s so obvious, I mean every

beat’s a really long note, right from the first birl, you just hold onto

it because it’s so natural, and if you walk up and down playing it; it

falls into place quite easily. And there are tunes that are easier than

others for that type of thing and probably these Hugh MacKay ones

like *Stirlingshire Militia* and *Crags of Stirling* are similar in that vain,

because you know...the phrases play themselves, you know,

because you don’t have a lot of time. (Discussions Willie


There has been a marked increase in the level of ornamentation in pipe music

when one considers the sources from 1820 onwards, and this is in part due to

the effects of competition. Goertzen notes a similar development in contest

performance of Norwegian fiddling (Goertzen 1997:174-5). However, even

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with the heaviest tunes, pipers’ aesthetics demand that the ornamentation should definitely not detract from the tune, and that having very good technique is important in being able to play a tune well:

...If you’re not having to think about getting that movement in, then you can play musically. You can put more expression into the melody note, put more value on that and the movement just comes in no bother. (extract from an interview with Willie McCallum, *The Voice* magazine, 2000: vol. 29, no.3)

Other tunes from Willie’s repertoire that can be designated ‘heavy’ are as follows: *Angus Campbell’s Farewell to Stirling, John McKechnie’s Big Reel, The Smith of Chillichassie, The Sheepwife, The Shepherd’s Crook, Maggie Cameron, Susan MacLeod, The Ewe wi the Crookit Horn*. The mere presence of any of complex gracings is not an indication that the tune is heavy; it is the density of these ornaments that indicates how heavy a tune is. The higher the density of ornaments, then the heavier the tune.

Roddy MacLeod emphasises the correlation between technical difficulty and heaviness of tunes:

**SM:** Right, *The Abercairney Highlanders* does that merit to be in there? [In the canon of marches]

**RM:** I think *The Abercairney Highlanders* is an interesting tune in that, instead of eight bars repeated in each part each part of that tune is made up of sixteen bars, you know, the eight bars don’t
repeat, that's what's really different about that tune. Its very varied, you get the impression that its longer than a four parted, you think this is going to be a great big tune. It sort of tests the memory, and I think it keeps the interest because it is different; it's a challenging tune as well, I think everything is there, to challenge the technique. From heavy bottom-hand work with taorluaths and grips to you know having to play good doublings in the, third part. It's got everything technique-wise.

SM: Is it one you've played? One you've won competitions with?

RM: Yeah, uh huh...I haven't played it in competition recently, for no particular reason, it's one I've been teaching recently...(Discussions Roddy MacLeod: 5/6/2003)

Angus MacColl also mentioned his love of the heavy 2/4 marches:

AM: I've heard all that kind of thing, folk getting criticised even for playing Jeannie Carruthers, big long notes instead of, it's too easy kind of thing...(demonstrates)... it doesn't matter if it's a long note, it's got to be the right length, got to make music out of it. So no, I suppose I've got in my own head the ones I like, again it's back to what the old man taught me, good heavy, heavy 2/4 marches as he talked about.
SM: What ones suit your fingers like that?

AM: Oh aye, Argyllshire Gathering, Stirlingshire Militia, Mrs John MacColl, Braes of Castle Grant, a lot of these kind of tunes, John MacDonald of Glencoe. (Discussions Angus MacColl: 15/2/2002)

Greg Wilson talks about 'down' tunes in a similar way to heavy. This is because the majority of the higher level ornaments in piping require bottom-hand dexterity. Here is an extract from an interview with him:

GW: Right, light music selection is very important, you’ve got to understand what you’re selecting it for, if it’s for competition purposes you’ve got to make sure you can handle it, if it’s for development purposes then you’ve got to make sure it’s going to challenge you. So if you’ve got a particular problem with throw on Ds or whatever you’ve got to pick a tune that has a number of throws on D in it and work on them and turn a weakness you might have right now into a strength…go head on and pick things that are going to challenge you in that respect. Competition-wise ehm, what, you should have mastered everything competition-wise so your tune selection is very important; make sure it’s a tune which you like to start, it’s no good playing something that you heard someone else play and think ‘that’s quite good’ or a tune that you don’t actually like, if you like it you’re more likely to play it a wee bit better, choose a tune that suits you; some people suit tunes which are a wee bit down - the likes of Inveran, Knightswood Ceilidh.
SM: What suits you?

GW: I’m sort of a wee bit ... Knightswood Ceilidh, Inveran those sorts of tunes suit me but other ones as well, The Royal Scottish Piper’s Society, The Braes of Brecklet those sorts of things, you know once you’re playing the tune whether it suits you or not, things which might not suit me as well; Mrs John MacColl, I find those sorts of tunes quite challenging, The Clan MacColl, things which are a wee bit downer.

SM: By down you mean?

GW: Bottom-hand sort of stuff.

SM: Oh you mean pitch-wise, bottom-hand work.

GW: Bottom-hand work, I mean it’s not that I’m shy of top-hand work I mean, Royal Scottish Piper’s Society is just about all top-hand work, you get a feeling for what suits you and for what you can sell across the best. (Discussions Greg Wilson 31/05/2001)

Greg finds tunes, with a lot of ‘bottom-hand work’ difficult tunes for competition. Although more of a pitch distinction, ‘down’ covers the use of heavy ornamentation also. His quote also demonstrates the variety of factors that can influence the choice of repertoire. In the playing of ceòl mór there is also a tradition of playing certain variations ‘down’ or ‘up’. For instance, when playing a Siubhal variation (entirely based upon the couplets of melody and interstitial notes) pipers often have the choice of arranging each couplet of notes short-long or long-short. This determines whether the higher notes
(structural tones of the melody) are given the emphasis (described as playing up) or whether the lower, interstitial notes, are given the long emphasis (described as down).

How heavy a tune is depends primarily on ornamental density. Contrastingly, light tunes are sparse of ornamentation. An example of this is the March *Mrs MacDonald of Dunach*. Here are the first two parts:

As can be seen there is less ornamental density than in *Stirlingshire Militia*. This is a light tune and as such, is one often taught to novice pipers.

*Heavy* is not only associated with ornamental density, I believe that it is associated with pointing of tunes also. The ‘heavier’ the pointing of a tune, the greater the stress on the beat. Chris Armstrong used it in this way in the
discussion (see p343) describing heavy pointing as being associated from pipe bands.

The term heavy is also used by pipers to describe playing that is outstanding in some way. Heaviness with its association to excellent technique is regarded as an aesthetically admirable quality, and is employed with reference to other areas in this manner. It would be interesting to note, if the terms 'heavy' or 'light' were used as aesthetic descriptors in other musical traditions, and what their connotations are? Certainly, amongst traditional musicians and singers I know, it is admirable to possess a big repertoire of material. I feel that the concept of heavy is related to the concept of 'bigness', that is so admired by traditional artists. For an analysis of bigness as a positive artistic aesthetic see Goldstein (1991). In this fascinating article Goldstein, reflecting upon his decades of fieldwork within folklore, observes that the singers to which he was drawn or directed to, were the ones with the biggest repertoires, or biggest voices, or largest diversity of repertoires (1991:168). These aesthetic qualities were highly valued, particularly because of the long, harsh winters before television or pulp literature in America:

"What was appreciated and prized in the Old World was soon equally valued in the New World. The singers and storytellers with large and diverse repertoires of long songs and long tales became the 'best' performers in the New World. 'Big' and its synonymous partners 'long,' large,' and 'diverse' became key aesthetic values in judging performers and performances much as
they had been among the European ancestors of the new Americans...the long, harsh winters – resulted, as several Newfoundlanders enjoyed telling me, in “big families, long ballads, and the consumption of extraordinary quantities of beer and rum.” The latter of course contributed to the former as well as to the successful and entertaining passage of time.” (Goldstein 1991:173-4)

As Goldstein says “big is beautiful” (1991:178) for his singers and storytellers; so ‘heaviness’ is admirable for pipers. Not only in terms of size but quality also. Furthermore, Goldstein identifies bigness with maleness, as a gender-ideal amongst his informants. This may well be because of the androcentric nature of his informants’ societies; Goldstein suggests that bigness is essentially a male attribute and that conversely, smallness is female. We can see this ideal of bigness within piping in other ways; the big repertoire, big sound are admirable qualities. Given the male-dominated nature of competition piping, it is perhaps unsurprising that heaviness and big repertoires are valued. Certainly the aesthetic of bigness can be seen in other traditional forms, for example the name ‘muckle sangs’ (see Henderson and Munro 1975). Heaviness, and bigness, in terms of complexity and magnitude are regarded as admirable qualities in the competitive piping culture.
Band versus Solo tunes

During the discussions, we all agreed that there are musical differences that lead some tunes to be more suitable for pipe bands and some more suitable for soloists. This difference lies within the tunes; some lending themselves to pipe bands more successfully than others. Band tunes emphasise the beat strongly. The use of suitable band motifs, repetition and anchor points is discussed fully in the section devoted to band tunes (p227 of Chapter 3). The previous modal complex analysis was prompted by the suggestions made in discussions. All discussion pipers agreed that there are musical differences between band and solo tunes. (See for example the extract from discussions with Roddy MacLeod on this subject in Chapter 3, p229.)

In all the discussions, the following tunes were all identified strongly with band playing: The Highland Wedding, Donald Cameron, The Links of Forth, Hugh Kennedy, The Clan MacRae Society, The Balmoral Highlanders. Other tunes that were strongly identified with solo piping: John MacColl’s March to Kilbowie Cottage, Bonnie Ann, Leaving Lunga, The Knightswood Ceilidh, The Stirlingshire Militia, Mrs John MacColl. Of course, the categories of band and solo types of tunes, are not mutually exclusive, as there are a number of tunes that can be played well in both contexts. Here Willie McCallum explains, this, and suggests, that it is also a differentiation in tempi, as some tunes do not
naturally sit at the right speed for bands. Band tunes usually are played faster than solo tunes:

SM: Another thing I was talking to Roddy about was the band and solo tunes. Pipers do make a distinction between these two types of tunes?

WM: I would say so, there's a lot of solo marches, it would be very difficult to play in a band. You know I wouldn't have thought a band would have great success with say, Kilbowie Cottage, unless you had, fifteen, twelve or fifteen, really good pipers who all played exactly the same way. The tune needs a bit of manipulation in the phrasing and the pointing. Stirlingshire Militia would be different because you could play, that, I've heard the Vale of Atholl play that in the past and I've really liked it, really good, so you know again I think there are tunes, and even from the point of view of playing in a band and playing solo, there was always tunes that if we played them in the band, I didn't play them in competition, because there would be just a slightly different emphasis probably more to do with the tempos than the musical side. I've been lucky playing in a band, that played more or less played the same way as I do, in terms of the looking for, there was an emphasis on the musical side as well as the execution, I didn't find switching between the two a big problem but I always tried to guarantee that the tunes weren't the same. (Discussions Willie McCallum 24/11/2003)
Willie makes a clear distinction primarily in terms of tempi; band tunes being faster tunes. He also makes it clear that solo tunes are hard to do with a band, suggesting that band tunes can be played by solo pipers. This is borne out by my own experience of hearing solo pipers play tunes such as *The Highland Wedding* and *Hugh Kennedy*. So this contextual distinction between band and solo tunes, lies in the tempi and the emphasis of the onbeat within the tune; some tunes meet the practical challenges of trying to get a large number of pipers in a band playing very tightly in unison together. The tempi at which to play band tunes is faster than solo performance. I suggest soloists usually perform between 60-80 beats per minute and bands between 70-100 beats per minute. This is my own estimate based on experience and undoubtedly exceptions could be found; however I feel generally that this is correct. The specific tempo is not as important as the reasons for the tempo at which a band or soloist plays. Bands need to drive tunes on and play together, whereas soloists have more room for musical interpretation and phrasing.

Here is an extract from the discussions with Chris Armstrong. He identifies the descriptors band and solo, and points out that the difference lies in the tempos, and the driving of the tune:

Musical example CD 1, track 19.

SM: ... Clan MacRae Society?
CA: Good tune.

SM: Is that a solo tune?

CA: No, not in my opinion anyway, it's a great tune for a band.

SM: Right, that's quite interesting, I think a lot of people would agree with you. What makes a good band tune then? As opposed to a solo tune, cause there are tunes on this list that could cross over.

CA: Yeah, *Brigadier Cheape* is an example of that you know....

I think, it's one of these tunes that you can really afford to drive, you know. I think if you, it's quite a punchy tune, if you, for example a band-type thing, going for that tune. [chanter example, *Chris* plays the tune with strong emphasis on the beat notes throughout.]
For me, that's the way that tune should be played, but you know yourself you couldn't go up and play that on the boards.

SM: No, it would be too straight.

CA: It would be far too fast, and not so much straight, because I mean that's got what we were talking about just a minute ago, going into that other style. [chanter example]

That's more left and right, on the beat type stuff. Which is you know, a lot of bands play that way.

SM: I suppose it's easier to get everyone playing together.

CA: Right aye, the thing about that is as well, with the drums, this is why that works so well with the bands... you only hear the beat, you don't hear the off beat, because the stick's coming back up the way. You only hear when it strikes the drum, and it only strikes it on the beat, it doesn't strike it on the offbeat.
SM: No no, surely the drums can strike on the off beat as well?

CA: Well they can obviously, but your bass drum.

SM: Oh I see, the bass drum, the accentuated beats.

CA: Aye, the accentuated beats, I mean obviously your snare drums aren’t just going click click! [on the beat], you know what I mean, the accentuated beats are on the beat.... And I think that’s why this type of tune [Brigadier General Ronald Cheape of Tiroran] suits bands better.

SM: And also, the contour of the tune maybe actually leads you on to the strong beats. [sings example]

CA: Probably aye. Likewise, that’s right, but if you were playing the tune at the speed you just sung that it would be boring...

SM: Maybe, here’s an idea, I don’t know what you think about this; actually, the way you approach the strong beats, is down the way and it’s leading you to accentuate them? [Simon sings example]
CA: Maybe, that could be, I mean, I don't think people in general would sort of think about it like that, but it's a good idea, I can see what you mean. (Discussions Chris Armstrong 4/6/2003)

Chris identifies 'band' style playing with very strong emphasis on the beat notes of a March. Moreover, Chris points out that not only do the pipers have to play together, but that the drum corps also has an influence on what type of tune can be played by a band, because the Bass section of a band usually emphasises the strong beats, making tunes with strong on-beats more suitable.

This extract also exposes the difficulty of discussing more abstract melodic concepts within a tradition more familiar with practising music than talking about it. This is an important point: Traditional music, based upon some degree of aurality, poses problems for the researcher when verbalising about music. There are aspects, particularly of performance aesthetics, which are often not discussed by practitioners of traditional music; this poses problems for the researcher wanting to discuss them. This is one of the reasons why I tried to focus the discussions upon specific tunes from each piper's repertoire, in order to discuss the conceptual issues without difficulty.
Notation and aurality

How do pipers absorb the modal complex? This is primarily through learning tunes from books. We learn tunes and build up a knowledge of our music-culture, all the while expanding and deepening understanding of our tradition. Pipe music is overwhelmingly learnt through notation. I have only ever met a handful of players who have been taught entirely aurally. This dependence on the written score is important for piping, and is the result of the nineteenth century drive to formalise pipe music, led by the Highland Societies of London and Scotland (see MacInnes 1989, Donaldson 2000). Nowadays, competition solo pipers rely very heavily on music, especially on collections such as Donald MacLeod's, Willie Ross's collection and the Scots Guards Standard Settings of Pipe Music.25 Competitions are judged by these texts and deviation from them without authority will immediately put one out of the prize list. In other Scottish traditions aural learning is the primary form of transmission and notation supplements aural knowledge. However, for piping the reverse is now the case; aurality serves notation. Donald MacPherson (one of the greatest pipers of the 20th century) now avoids teaching obscure settings of tunes, precisely because they may be unfamiliar to some judges:

25 This last collection being so widely photocopied by pipers that the publishers have waived the copyright on it.
There was never anything standard until Willie Ross's books came out. They became the mainstay. Unfortunately, sometimes the judges thought I made a mistake because I wasn't playing a recognised setting. On one occasion, at a competition in the Glasgow City Chambers, I played the reel "MacAllister's Dirk" with a second time variant in the first part, from one of my father's manuscripts. D.R. McLennan came up to me after the competition and said, "I think you'll have won this event, it was a clear-cut winner," but I never got a prize. I heard afterwards that one of the judges said I had gone off the tune, and this sort of thing could have happened quite frequently, so I warn my pupils not to play unusual settings. (Donald MacPherson 2005:33)

Although one can learn roughly what to do from teaching manuals and tuition books, one still needs a teacher in order to show how tunes and embellishments should sound. There are many tunes that are published, and pipers know that they are to be played slightly differently, or have their own particular setting, though perhaps this is more true for piobaireachd than light music. Here Willie McCallum proves this point:

WM: Captain Campbell [of Drumavoisk] aye, that was a tune that Hugh said to me, 'why don't you have a look at that?' and in the second part there's a wee change and I play it basically out of Ross' book, and there's a wee change in the second part, just in the first bar there. I had a look at it played it for a wee while and he said, 'that sounds good,' and it's a tune that's become, it's been a very good tune to me, because I won the marches at Inverness with that,
that was my first big prize really. And I suppose, I've had it picked out quite a lot and, I find it a really straightforward tune for me, because it suits the way I play, and that's a very difficult thing to put your finger on, but maybe cause I've played it a lot I don't need to touch it for weeks and weeks and if I've got a competition coming up, I play it a few times and then that's it back in there. It's a tune I don't need to work on. The next one on the list is one I do need to work on, [The Duchess of Edinburgh] I just find that it takes a wee bit more music, and takes a wee bit more for me to get the flow going in that tune. So it's quite funny, the two tunes don't seem that much different in terms of difficulty, but musically I think they are.

SM: Some tunes just suit your fingers?

WM: I think, aye, and just suit your mind and the way you play. I mean there are a lot of tunes I've looked at and either I don't like them, or they don't like me kind of thing. It's quite, sometimes, well, the majority of them I try to avoid before I've done any damage. Well, occasionally I'll get a tune going and play it in competition and then really wished I hadn't, and I suppose that's experience, you get better at picking out the ones you can't play very well. Nobody can play every tune as well as the others. And I think over time, that this list we're looking at has probably evolved a little bit and I've probably a sort of core of tunes and there's a few outwith that that kind of go in and out [the repertoire] at regular intervals, and maybe occasionally they'll be one new one, every
couple of years and I say, 'I'll put that one in' and but maybe play it
at recitals for a while before that happens just to get the confidence
going. (Discussions Willie McCallum 24/11/2003)

Willie has narrowed down his list of competition marches to ones that he
knows well and is confident in performing. This is a long process and one
which all competition pipers go through. He has his favourites, and again
similar to other players, these are tunes that suit his style of playing. The
above quote also demonstrates the depth of consideration that Willie takes in
selecting new tunes; this is another example of the conservative effect of
competition.

Pipers use their knowledge in their aesthetic judgements about tunes
and the selection of their repertoire. This knowledge is useful to composers of
new tunes. They base their compositional judgements on their knowledge of
the current modal complex, composers can use this knowledge to define
themselves on a continuum between traditional and modern. (Or in the case
of poor composers, not taking account of this knowledge can result in bizarre-
sounding tunes that do not sound part of the tradition at all.) Nowadays, the
written score is the driving force for the learning process. This is the result of
rise of competition as the main performance context and the need for scores
which competitors can be judged against. Thus the function of piping has
determined its method of transmission.
Researching how pipers learnt their piping is a difficult task. Katherine Campbell makes the significant point that asking someone retrospectively how they learned to play an instrument gives unreliable information (Campbell 1999), because 1) the distance in time causes reinterpretation and forgetfulness and 2) because of the

"...psychological distance between enactive knowledge and verbal consciousness." (Campbell, Katherine 1999:51)

In other words, informants might not be able to describe their learning, because they may not remember how they learned, they may be able to do something, but not articulate how they actually came to be able to do it.26

Conclusion

Essentially, when pipers look at a new tune, they bring their unique personal aesthetics into judging its merits. For pipers, aesthetic judgments are often related to competition as context. For example, heaviness is regarded as a positive aesthetic and tunes can be heavy or light, heaviness referring directly to the internal ornamental density within tunes. For competition, heavy tunes are the norm, they display the piper's abilities to their best and demonstrate a degree of difficulty required by that context. In other contexts,

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26 In an attempt to overcome this Campbell developed a methodology for observing the learning process as it takes shape, based on participant observation.
different factors prevail: pipe bands demand tunes with a higher degree of anchor points and emphatic beat notes to aid integration. Solo competition marches are more flexible with the beat and allow for myriad individual interpretations of the internal rhythm. Phrasing and pointing are highly sophisticated tools for the pipers; at its most developed, they can be used to stamp an individual’s identity upon a performance, and set the boundaries between individuals. As we have seen, competition greatly affects aesthetic judgements on performance. Not only in terms of choice of repertoire, but also in how it is played; notational accuracy being a key consideration. Competition as the primary performance context has resulted in aurality being used in the service of notational transmission. All these and more factors come to bear on pipers when choosing what, and how to perform.
Chapter 5

Conclusions: The Competition Performance
In this Chapter I present conclusions, suggest areas for further research and demonstrate through composition the validity of the modal complex. In the discussion of traditionality, I present some of my own compositions in a traditional style and show, through analysis, how they can be considered traditional. Although this research on the modal complex has focussed upon competition 2/4 marches, I show briefly how the same motifs can be found only slightly altered in other genres, in the belief that this research has ramifications for pipe music in the widest sense. I begin by presenting the integrated conclusions of this research.

**Sound aesthetics**

Competition pipers think about all elements of a performance as a whole. A good competitive performance depends on all aspects; excellent phrasing during a performance will be discounted if it is performed on a poor sounding bagpipe. An excellent sounding bagpipe will not be valued if the finger technique is bad. An excellent technique will not count for much if the piper plays too light a tune. Sound aesthetics of bagpipes are of particular importance to pipers because, as demonstrated in Chapter 2, an individual sound is crucial in forming and maintaining the identity of a piper. In competition, the great appeal is to perform to the highest level, and this
involves all aspects discussed. But, as Greg Wilson says, to begin with, you must have an excellent sound:

SM: ...how important is the sound nowadays? I would say that the sound of the pipes is half the battle? Really for competing?

Greg Wilson: For competing it’s probably seventy to eighty percent of the battle because if the pipes are right, then you, well if the pipes are not right, there’s no chance that you’re going to play a good tune. If the pipes are right then you feel a lot better, about yourself anyway. You can be playing the best, you can be the best player in the world but unless you’ve got the instrument platform to prove that you’re the best player in the world it doesn’t matter, it doesn’t matter, it’s just so, so important. I think, ehm, I think quality of sound to me is very important. Most of the time you spend playing the pipes is not in the competition form I mean I’m a competitive solo piper I mean that’s the main thing I do, but I play in recitals and I practise a lot at home. Most of the time you spend practising at home and if you’re not happy with the sound that you’re producing there, what are you doing it for, if you’re not enjoying it and my main focus is not necessarily to win prizes, my main focus is to get onto the competition platform and enjoy the tune that you’re putting across.

...Competition-wise, the biggest buzz I get certainly in the competition arena is walking off the platform. It’s not receiving a prize or anything, it’s walking off the platform knowing that you’ve done as good as you can do, if you know you’ve performed to your potential and you’ve done the best you possibly can do, your pipes have the thing, your fingers have done the job and
musically it was good; that's the best feeling, walking off the platform and then, regardless of what the result is it's still the best feeling. You can't do any more than that. Performing to your potential is [what it's] all about, whether you're competing or giving a recital or just having a few tunes is what it's all about, performing to as good a level as you can. (Discussions: Greg Wilson 31/05/2001)

Pipers also identified blowing as crucial to sound production; the same pipes can sound remarkably different with different pipers' blowing techniques. Furthermore, pipers consider stability to be as important as quality of sound; drones going out of tune in performance will put one out of the prize list.

There was general agreement that the overall pitch of the instrument has risen in the latter half of the twentieth century. Pipers felt that higher pitch may bring a competitive advantage. The concept of a believable or reasonable pitch arose directly out of the discussions with pipers. This demonstrates awareness of competition pipers as a distinct community and emphasises the self-regulation of our tradition. A believable pitch shows that relative pitch amongst individual competitors is important, and how pitch is used to create and maintain identity. For example, Chris Armstrong intentionally pitched his bagpipe higher than other competitors, and regarded this as part of his identity as a player.
The discussions also showed that function is an important consideration in determining pitch. My discussions with Finlay MacDonald demonstrated that his non-competitive function affects his concept of pitch. He feels that pipes should be played in B flat concert pitch, as he regularly plays with other musicians. Pipers enjoy a great freedom of pitch, in that they have no fixed standard, and they place themselves higher or lower according to their preference within a group consensus on relative pitch. Because group factors enter into pipers’ choice of pitch, researching this area is particularly interesting.

Overall, we understand the separate concepts of pitch, intonation and timbre; however a piper’s sound is always conceptualised as an entire package, where all three aspects effect each other, and pipers think of ‘the whole package’ in terms of performance.

The concept of consonance with the drones affects tune construction as well as intonation. Pipers tune their chanters through consonance with the drone. Therefore the scale of the chanter is not tuned to equal temperament but is tuned to give as great a consonance as possible with the drones.

The drone-tonic acts as a magnetic force pulling melody back into consonance with it, and that is why the double tonic is so prominent in bagpipe tunes. Twenty-one tunes in the total canon use the double-tonic structure demonstrating that this structural concept is a prime constituent of pipe tunes. Further evidence of the pervasiveness of the drones lies in the fact
that sixty of the total sixty-four tunes are in A or A/G modes. Only four tunes do not resolve to this note. Indeed, the overall effect of pipe music is almost entirely dependant on the drones.

The relationship of the drone to the horizontal development of the tune gives rise to various emotions through varying consonance and dissonance. A more consonant sound, produced by tunes in A mode, sounds happy and strong; more dissonant pitches against the drone sound tense and give rise to more disturbing emotions. This is markedly different when playing with harmonic accompaniment; harmony instruments change the emotional effect of tunes. For example a tune primarily in A/G mode may sound fairly tense and disturbing on the solo pipes, but when playing with accompaniment, the G-centred sections can be interpreted as in G major, altering the tonal relationship altogether, resulting in a happier sound.

Tradition

"...traditions blend and contend in our world, and we are apt to congratulate ourselves for enduring in times of such complexity, times when traditions dedicated to stability, progress, and revival meet in confusion. But no golden age of integration lies in the past.... It was ever thus." (Glassie 1995:405)

The notions of tradition and competition can appear mutually exclusive to some. One of the main conclusions of Chapter 4 is that competition is the
single biggest influence on pipers and their music. It is a process which is closed-loop, hierarchical and highly conservative, a tradition that:

- is hierarchical in nature
- is canonical in repertoire
- is slow changing
- is primarily book-based; a literate tradition where aurality is used in the service of notation.

There are some differing views on competition as the main performance tradition. A senior judge, Norman Matheson, suggested that competition does not encourage adventurous interpretation of music (see p318, Chapter 4).

Allan MacDonald goes farther, reporting a deep unease with competition, particularly in relation to piobaireachd. The following extract is from an interview published in *Piping Today* magazine. It focuses upon piobaireachd, but I have included it as I feel MacDonald's opinions on competition are pertinent to the issues surrounding competition and tradition generally:

... "I had a feeling that something wasn't quite right, my experience of the Highland games was that it didn't matter who you played to, everyone had his own opinion about what was right or wrong and after a while I got sick of it and thought, well wait a minute, this music is from here. For example, I remember playing one day in a field of maybe 23 pipers at an open competition. I was last on and by then it was bucketing down with rain. Angus MacPherson of Invershin, near 90 at the time, and Seton Gordon, the ornithologist, were on the bench...When I came off, one of the leadingpipers of
the day was standing there and said to me: 'son, that's no the way you play the last line'. I laughed. Here it is bucketing with rain and he comes out with this stuff. I said something like, 'for God's sake, the tune says it all itself'. Then, to compound the issue, I got fourth – with a tune you wouldn't expect to get a prize with because you're competing against big tunes – and this man didn't make the prize list...

How could you judge different styles, different settings and versions with reasonable consistency? It had to happen when you think about it [standardisation]. But, through time, it [piobaireachd] became so standardised that it became boring.

(MacDonald 2004:9-11)

Willie McCallum on the other hand feels the role of competition as preserving tradition is positive and important to him:

...I think competition is a good thing. I think if we didn't have competition, I think if we didn't have competition at all, I think the standard of instrument and technique, might be considerably less than, than it is just now, and probably for the reasons I've said, people strive to have these things in place as a sort of minimum requirement. I also think that competition is good, because it almost sort of preserves what we've got, you know, I wish we had maybe had competition two hundred years ago, because we would have all the various settings of the piobaireachds. But maybe that's the wrong way to look at it, we live in a country where people had horses and carts...(we've lost settings because historically communication wasn't so good) I think there's a preservation of good solid piping, MSR, hornpipe and jig, that's got to stay there. I
think people are realising that there's something nice about quality traditional music, and I don't have any problem with the people that are saying, 'we want to do something different' and there's nothing wrong with that, as long as it's not at the exclusion of everything else, and people will do their own thing...if they don't want to do it, nobody's going to force them. I think a lot of people come back to it. And I think it is important to play the way they were taught and keep that going. I don't think there's any worries about that... the only thing that worries me is that a lot of kids grow up wanting to do that first, and then they tend to learn a lighter technique, and they don't have the strong technique to manage the big stuff, that's the only worry I have; they get to thirteen and they can play six hornpipes and six jigs, you know, before they've even got one 2/4 March, it does happen you know. And that's the only worry I have about it.


Willie McCallum voices an inclusive attitude towards different styles of music, and believes that competition is good for the music and the preservation of tradition. Allan MacDonald finds competition restrictive and standardising; both these viewpoints are often expressed to me. Tradition does create the standardised texts and elitism amongst the performer community, however it also promotes excellent technique and sound. Tradition can exclude and include people and materials (Glassie 1995:405) therefore it can be argued that tradition is static and progressive, depending upon the particular bias of the interpreter. I view the piping tradition as a
complex, where change, continuity, process, performance and people all interact continuously in subtle ways. This is consistent with thinking of tradition as a multiplex process:

"...older ideas about 'tradition' are affected by recent discussion about the socially constructed formulation of traditions, so that what is called 'tradition' has also to be viewed critically as a process to be located in historically specific situations rather than a 'natural' 'thing'." (Finnegan 1992:52).

Competition, as the major performance context for the piping tradition, may be perceived as either positive or negative depending on stance. In my view, competition is an effective vehicle for the transmission of the materials of our musical tradition. Furthermore, almost all performer communities have a hierarchy and elite performers, and usually some element of competition. However, in piping, competition is wholly visible and the main performance context; that is why it is fundamental to consider its effect on the musical tradition.

The motivation to compete was discussed throughout fieldwork, and Chapter 4 shows that it resides in the following factors:

- The personal challenge
- The prestige resulting from competition success
- The love of the music
- A continued sense of the preservation of tradition, and of being a link in that tradition
There are limited other performance opportunities

The tradition of ceol beag is less fixed in terms of performance practice than the ceol mor tradition, but there are now very few new compositions of competition-type ceol beag compared to the early twentieth century, when the majority of the canonical composers were actively writing new tunes. This may be due to competition which has greatly affected the choice of repertoire, the style of playing, the rate of change, the structure of the performing community, the individualism within the traditional framework, the preservation of that framework or tradition, the gender of the competitors, the sound of the pipes and the technique used in playing. The effects of competition are manifold, and as is typical in the piping world, are judged positively and negatively depending on the stance of the commentator.

Repetoire

One of the most striking and interesting effects of competition is upon the repertoire. All competition pipers make choices about their repertoire, that are based on much more than the simple appeal of a tune. Aesthetic judgements include evaluations of heaviness, difficulty, suitability for style, age of the tune, phrasing possibilities within their own style, popularity amongst other competitors, composer, length of tune, suitability for band or solos. All these factors influence pipers' choice of tunes, and thus determine the canon of competition tunes. Canonical change, in the form of new tunes
or settings of pre-existing tunes, comes from the elite pipers who have the seniority to manipulate the canon. This demonstrates how change in the tradition is regulated; collectively we only allow the best players, who have already proved themselves faithful to the competitive tradition to make changes or additions to the canon of tunes. This ensures that any innovation adheres to the traditional aesthetics.

A phrase that often crops up in discussion with pipers is "it suits my fingers". This encapsulates many of the concepts discussed in Chapter 4, and is indicative of the holistic nature of aesthetic judgments pipers make about tunes. Greg Wilson certainly feels that the selection of tunes for competition entails more than simply choosing enjoyable melodies:

GW: Yeah musically, I mean it doesn’t matter what, you’re playing in a competition, you’re playing in a recital, you’re playing in a pipe band, whatever you know you’re a salesman, a salesperson, you’re in the business of selling your music, getting it across. If you’re playing something which you don’t like, enjoy, or it doesn’t suit you, you’ll have more trouble selling it. So certainly for competition purposes, choose something that suits you that’s going to show what you can do, show it off to the best of your ability and you know you can sell pretty well...you’ve got to look at the purpose that you’re doing it for, in my case mainly competition, there is some great 2/4 marches for example which are quite straightforward, easy tunes very nice melodically; but you
wouldn't play them in a competition, so you would say they're perhaps not competition-type 2/4 marches.

SM: Because they wouldn't show off technique enough?

GW: That's right, not at the A-grade level at Oban and Inverness, they are not technical enough they're not technical enough at the B-grade level. (Discussion Greg Wilson 31/05/2001)

My own personal choice of material for competition has developed and become more sophisticated over the years. I particularly enjoy choosing tunes with a melody that allows several options for phrasing and some tunes are more amenable to this than others. For example, a tune such as Leaving Glenurquhart does not allow as much pointing and phrasing as The Duchess of Edinburgh. Consider the first part of each tune:

Leaving Glenurquhart

W. MacDonald

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1 Greg Wilson is referring to the CPA grades for pipers that separate pipers into ability groups. See p.285 in Chapter 4 for a fuller explanation of the grading system.
From a playing perspective these two tunes are quite different. The descending directionality of *Leaving Glenurquhart* leads the player into emphasising the beat-note of each grouping, thus making it sound heavier, and quite emphatic on the beat. *The Duchess of Edinburgh* however, provides far more opportunity for the player to come-and-go with the melody, pulling out notes that are not always on the beat. These tunes, like *The Duchess of Edinburgh*, are the types of marches I enjoy playing and I feel they suit my style of performance. As shown in Chapter 3, pipe bands require tunes with more anchor points, often with more than four parts, repetitive motivic content, band motifs and a melodic direction that emphasises the beat. Thus no band would choose to play *The Duchess of Edinburgh*, but it is possible a band might play *Leaving Glenurquhart* as it has more of these qualities. This was highlighted in discussions where pipers agreed that certain tunes such as *The Balmoral Highlanders, The Highland Wedding*, contain the modal devices more suitable for pipe bands.
Individual style of phrasing and pointing is an important aspect of performance to the discussion pipers. Chapter 4 concluded that phrasing of tunes is something personal to every piper and question and answer phrasing is fundamental to 2/4 marches. Question and answer phrasing is aided considerably by the double tonic structure. Furthermore, the development of phrasing is the principal method of individual interpretation in performance, and thereby maintaining a piper’s identity. Pointing is a concept closely tied to phrasing, whereby pipers manipulate the relative lengths of dot and cut notes; a very pointed March is one where the dotted notes are played far longer than represented on paper and cut notes far shorter, without interrupting the pulse of the tune. So each piper considers these issues when selecting repertoire and if sensible, tries to play to their strengths, and to improve upon their weaknesses, as Greg Wilson pointed out.

Other genres

At many competitions, it is common for there to be separate March, Strathspey and Reel, Piobaireachd, Jig and/or Hornpipe and Jig competitions. Therefore, often at Highland games, one can hear the March and then the piper tuning their pipes and launching into the Strathspey and Reel. In the course of this thesis I have only dealt with 2/4 marches, and only then the competition-type 2/4. Informally, I have noticed similar modal traits in other
genres, where many of the same motifs can be found. It remains to be seen whether the grammar of the 2/4 pipe March is more widely applicable to other genres of pipe tune, or whether the motifs I identified exist in the wider Scottish tradition.

Some of these modal traits may indeed be perceived in other genres. Firstly, the pitch sets of almost all pipe tunes I have experienced fall within the pitch sets examined in the marches. There are some more modern tunes, composed within the last ten to twenty years, particularly those composed for pipe bands, that use unusual pitch sets. However the vast majority of pipe tunes fall within the 8 modes as laid out in the conclusions of Chapter 3. Further research might reveal different hexatonic or heptatonic variants of the D mode and E minor mode, as I have found with the A modes. Quite a number of the older jigs and reels are in non-A modes.²

Secondly, the motifs identified within this study appear in other genres of tunes, albeit in different rhythmic schemes. It was beyond the scope of this work to examine in detail the canons of competition strathspeys, reels and jigs etc., but a brief exploration shows some of these motifs in other genres. The G A B G motif appears in the first bar of the well-known Strathspey *The Ewe with the Crooked Horn*:

² My thanks to Roderick Cannon for pointing this out.
In this context the 1 2 3 1 rhythm-contour motif operates in exactly the same way as in the marches: it emphasises G as an important note in the progression of the tune. This tune has four parts, and the pattern-of-range of these parts moves progressively higher with each part, which is different from the canon of marches. This tendency also links into the folklore surrounding this tune. The modern setting has developed from the earlier two-parted versions entitled, A Chaor Chrom which roughly translates as 'the Crooked Horn' (for example MacKay, Angus (1843:78) for a very early setting). It was apparently played in the Highlands of Scotland by Gaels, to signify that illicit whisky was ready to be drunk. The other story related to me³ was that the tune was composed to imitate a sheepdog's strategy for rounding up a stray ewe in a field. The tune brings to life the careful cowering of the dog; the concentration upon the dissonance of the G note against the drone-tonic of A aiding the story in this respect. The chasing of the sheep, the snapping of the dog at the ewe's hindquarters and its victorious manoeuvre of the sheep into the fold are represented respectively by each part. There are numerous legends and stories associated with pipe tunes, and this is but one example of

³ Related to me in a lesson by Angus J. MacLellan.
how the complex of a tune can be illustrative (or generative) of its associated folklore.

That rhythm-contour motif 1 2 3 1 and its inversion at the top end of the chanter: 1 7 6 1 e.g. hA hG F hA, is found commonly throughout all pipe music in many forms, for example the last part of the Strathspey Dorrator Bridge. Here the motif runs across the first two beats and is balanced by the following two beats where its contour is inverted around the note D, thus providing the question and answer function so common in pipe music:

Dorrator Bridge (fourth part) J Braidwood

Turning to reels, the A B grip C D motif, a characteristic of the A/G mode can be found. For example, the Reel Duntroon or the third part of Charlie's Welcome, as published in the Scots Guards Collection book 1 (various 1954: 189) show this motif:

Charlie's Welcome traditional

The hA E C E motif is also a motif I believe to be common to all pipe tunes and it occurs in various locations in tunes. In The Grey Bob, a well known
competition Reel, the motif is used throughout the tune, but in common with its use in the canon of marches, is used most frequently in the final part:

The Grey Bob

One of the most common motifs in the canon of marches is the falling F E C A motif, and the associated hA E C A motif. These are riddled throughout all pipe music and here is a good example of it in use in another Reel: the classic and technically challenging *John McKechnie* (various 1954:200):

*John McKechnie* (second part)

*John McKechnie* also demonstrates heaviness due to a high degree of ornamental density. As we have seen in Chapter 4, heaviness is an aesthetic highly valued by pipers, allowing them to display their formidable technique to the best.

*John McKechnie* also demonstrates the use of the 5 1 3 1 rhythm contour motif, in bars 1, 2, and 5. This motif was shown to be a common motif in
Chapter 3, and its use in other genres comes as no surprise. This motif and others in Chapter 3 illustrate some of the features of the double tonic in pipe tunes. The shift in tonal centre between A and G is demonstrated well by the 5 1 3 1 rhythm contour motif above. This is a common feature with rhythm contour motifs and their more specific realisation in melodic motifs, where the motif is shifted wholesale down or up in the two tonic sections. Not only these motifs E A C A and D G B G but others such as the E C A and D B G, the A B C A and G A B G and the C B A and B A G motifs are all manipulated in this way because of the double tonic.

Another finding in the modal complex was the increased melodic density in the third and fourth parts of marches: this is generally true of strathspeys and reels as well. The first and third and the second and fourth parts of marches are linked to each other through a form of variation where motifs are changed from 3 to 4 note motifs.

Traditionality

For the piping community, 'tradition' and 'traditional' are familiar words. As explored in Chapter 4, players can be part of a 'tradition'; using the concept to describe a playing style, or small sub-group within the main piping community such as army pipers or Hebridean pipers. My interest in the concept is focussed upon its use as an adjective describing the modal
complex of a tune. The altered term 'traditionality' is not new; it has been seen in the writings of folklorists from the 1970s onwards.4

To understand the adjective 'traditional' in describing the musical properties of a tune, I decided to use my own compositions. In describing a tune as 'traditional', pipers are commenting on the modal traits of the tune which have been handed down through the 'tradition'. By composing new tunes, I have examined the concepts already dealt with, such as particular traditional motifs, structural tones, patterns-of-range, heaviness, suitability for solo/band and phrasing; all through comparison of new tunes to the modal complex of the established canon. Furthermore, composing allows a stream of material back into the performer community of which I am a part. To the non-academic piping community, one of the most important contributions I can make is to give some tunes back to be played. This thesis has allowed me to examine in detail an important area of bagpipe repertoire, and any tunes I now write are affected by my knowledge of the tradition as laid out here. Indeed over the last four years of this study, I have noticed a tendency for my composition to be more biased towards the traditional modal traits. Composition demonstrates the conclusions in a culturally valuable manner; by explaining and offering new tunes. In some senses Chapter 3 can be viewed as the deconstruction of the grammar of the 2/4 March, and this short

4 For a good overview of the use of the term within folklore see Ben-Amos (1984:116-7).
section is a creative reconstruction that demonstrates the principles discovered in Chapter 3.

Through comparison of the known modal complex of a genre, I believe it is possible to arrive at a 'measure' of traditionality of a tune. As a composer myself I am continually aware that I am writing new tunes against a backdrop of the music that has gone before. I am not mechanically setting out to write through my knowledge of the modal complex: the knowledge of tunes enacts itself subconsciously in composition, and I make choices about where the tune will go, through playing on the practice chanter, and by playing what 'feels right'. Importantly, I believe that what 'feels right' is determined by traditionality. A departure from this is felt 'through the fingers' and is immediately apparent to the subconscious 'composer-analyst'. Inherent in this view is the notion that anyone who composes traditional tunes is in themselves an analyst of their music. He or she subconsciously understands what 'feels right' based upon their own experience of the traditional repertoire and will make compositional decisions consistent (or not) with that knowledge. This is informed by contextual knowledge: knowledge of competition repertoire, of suitability for style, heaviness and other issues such as difficulty. Therefore to compose is one form of analysis and excellent composition shows complete understanding of the genre. Furthermore, the composer-analyst is adding to the repertoire of tunes and feeding back into the performing community. The following quote sums up this relationship
between the composer and their tradition, whilst setting it within the
framework of psychological archetypes:

...archetypes may play a significant role in shaping aesthetic experience and fostering cultural continuity in the absence of any conscious conceptualisation about their existence, nature, or kinds. Rather, they may be and usually are internalised as habits of perception and cognition operating within a set of cultural constraints...as will soon be apparent, very familiar melodies may be members of archetypal classes without our being conscious of the fact. (Rosner and Meyer 1982:159)

I recognise this as a pipe tune composer, but my research has made me aware of the ‘archetypal classes’ I use in composition, and the value-judgements I make during composition. The composer of formulaic music is in one sense a manipulator of archetypes; the notion of the psychological archetype could be read as the rhythm-contour motif in pipe music, because it is at the bedrock of the piping style. Archetypes, as expressed in the rhythm-contour motifs, actually inform pipers' aesthetic notions of traditionality. As composers move through the process of writing a tune, be it on paper or in the mind, they reject some ideas and keep others, based upon their own aesthetic intentions.

It would be interesting to see the contribution psychologists could make to understanding this process. Psychologists suggest (for example Deutsch (1982)) that the archetypes function within gestalt structures, and
that their combination produces the whole that is greater than the sum of its parts. Put crudely, I relate archetypes to motifs, and the gestalt to the modal complex. Furthermore, the 'archetypal' motifs only make sense within the framework of the traditional tune. On their own, these motifs are meaningless. It is only when they are heard as part of the tune, fulfilling an appropriate function, that they then convey melodic meaning.

How traditional a tune sounds is strongly determined by its motivic content. Sometimes pipers will remark that a tune sounds 'traditional'. The very use of the word 'traditional' as an adjective describing a tune, suggests that the tune displays internal musical devices (motifs/archetypes) that identify it with other stylistically similar tunes. Therefore there must be musical devices readily identifiable as 'traditional'. Those tunes labelled 'traditional', and those before them set the musical 'context-of-context' for the traditionality of further tunes to be measured. So this group of traditional tunes is presumably not static, and the concept of traditionality must change as compositional styles change.

At this moment, what constitutes traditionality within the canon of 2/4 pipe marches? I believe that the canon of marches, as laid out in Chapter 3, forms the substantial basis for notions of traditionality in the modal complex of 2/4 pipe marches. In other words, I assume as an insider, that the modal complex of these marches constitutes the traditional in pipe music and that this can supply the researcher with a measure of traditionality. This
technique can only be deemed relevant if comparing another 2/4 March to the modal complex of the canon of 2/4 Marches. The benefit of this research technique to ethnomusicology is that through fieldwork, the researcher can ascertain what is traditional by group consensus; and then new music can be evaluated as to how traditional it is. This information could then be used to better understand the compositional process within highly formulaic music-cultures, such as piping. This is an area of research that I could take forward beyond this thesis. Furthermore, it also ties together the aesthetic judgments of the composer/performer community to the notes of its tradition. Crucial to this notion of analysis via composition is originality balanced with traditionality. My own experience shows that because of the highly formulaic nature of bagpipe music, originality in composition is very difficult to obtain whilst also keeping the tune traditional. These two aesthetic criteria of composition are in some ways dichotomous; however, the best tunes manage to be original and traditional at the same time. The bagpipe modal complex is a tightly controlled one in comparison to other repertoires I am familiar with. For example, I perform regularly on the Uilleann pipes and I can testify that the repertoire of other Uilleann pipers is open to far more interpretation and individualism both in performance and in composition. Originality in composition becomes harder to achieve if the framework for composition is restrictive.
My approach here is limited however to demonstrating how my own compositions compare to the modal complex. However, I believe that there could be further valuable research scope for research with a much broader base of composers, and analysis of the process of composition outwith this study.

When composing one has to make choices about the development of the tune. My experience is that the initial two bars or first phrase of the tune is vital; once this is in place the rest of the tune almost 'falls into place'. This is because of the strict framework of the modal complex, that limits a composers choices if they wish to compose in a traditional style. For example, if the tune is A pentatonic or hexatonic, then it feels appropriate to finish the second phrase with a B structural tone. Moreover, it feels right to follow the patterns-of-range for the development of the tune and it is almost unavoidable in my experience to end up using some of the appropriate motifs to the mode, as outlined in Chapter 3. Of course, any of these rules can be broken, but they offer a successful framework which suits the drones and chanter of the bagpipe.

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5 I have heard several pipe music composers say suggest this; once the first couple of bars or phrases are there, the rest of the tune comes easily.
Tune 1: *Mark McKerrell*

I will now present the tune I composed in an attempt to write a pipe band style, heavy 2/4 March. Presenting an analysis of the tune will demonstrate the conclusions of the modal complex in a creative manner, through comparison of my compositions to the modal complex.

Mark McKerrell

Simon McKerrell
This tune fits firmly into the A minor mode pitch set, which excludes the note C(#) as a melody note. Consider the pitch sets of other A minor mode tunes in the canon of marches:

<table>
<thead>
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<th>Tune</th>
<th>mode</th>
<th>pitch set</th>
<th>structural tone bar 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Captain Carswell</td>
<td>A minor mode</td>
<td>GABDE(F) E</td>
<td></td>
</tr>
<tr>
<td>Colin Thomson</td>
<td>A minor mode</td>
<td>GABDE(F) E</td>
<td></td>
</tr>
<tr>
<td>Edinburgh City Police Band, The</td>
<td>A minor mode</td>
<td>GABDE(CF) E</td>
<td></td>
</tr>
<tr>
<td>Hills of Kintail, The</td>
<td>A minor mode</td>
<td>GABDEF E</td>
<td></td>
</tr>
<tr>
<td>Knightswood Ceilidh, The</td>
<td>A minor mode</td>
<td>GABDE(F) G</td>
<td></td>
</tr>
<tr>
<td>Renfrewshire Militia, The.</td>
<td>A minor mode</td>
<td>AGBDEF(C) G</td>
<td></td>
</tr>
</tbody>
</table>

My composition employs the pitch set G A B D E F, keeping it within the traditional framework of the A minor mode. It is important to point out that this is a genuinely subconscious decision; I have not contrived to write only in this pitch set, it happens as a result of thinking within the traditional framework. This highlights an important point about composition for me: if I set out to write a traditional tune, then my compositional ideas are restricted to what falls into the traditional. For example I would not use the crotchet-worth rhythmical combinations of: or as they would not be considered traditional by pipers. However if I am writing a more modern tune, then I might include these, or other syncopated aspects, chromatic notes, any idea that is more obviously new or outwith the traditional.
Consider also that this tune is genuinely hexatonic. Early writers tended to view smaller pitch sets (e.g., pentatonic, hexatonic) as being older ‘gapped’ scales and on the way to the fully heptatonic development of diatonicism. This view is inconsistent with the piping tradition. For example, many of the most traditional tunes in the current canon of marches are hexatonic, such as, The Braes of Castle Grant, or consider for example John MacColl’s classic March Mrs John MacColl which is a genuinely heptatonic tune. The majority of pipe tunes are hexatonic or pentatonic. For piping, the size of the pitch set bears no significance to the traditionality of the tune. The fourth part of this tune illustrates my intention to write for a pipe band which has resulted in increased repetition. This is consistent with the band aesthetic as outlined in Chapter 3.

Tune 2: Dr Mike Paterson

The second case study for composition is a tune that I composed in December/ January 2003 called Dr Mike Paterson. I intend to show through analysis how this tune is traditional.

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6 It is important to draw a distinction between ‘modern’ as a stylistic descriptor that indicates use of ‘less-traditional’ idiom and of ‘modern’ as referring to age of composition. An old tune is not necessarily a traditional tune. A good example of an older (at least 60 years old) yet very modern tune is The piper’s controversy. In this section, I use ‘modern’ purely as a stylistic descriptor.
This tune conforms to the concept of the double tonic as noted in the A/G tunes in Chapter 3. The only difference is that the second phrase is not G-centred but B-centred. This is in keeping with the idea of the double-tonic as consonant and dissonant phrases against each other: the overall dissonance of B is more important than the direction in which the double-tonic moves. In
this way it could be termed an A/B mode tune. This becomes clearer once the
structural tones are extracted:

structural tones for Dr Mike Paterson

first part

second part

third part

fourth part

Here we can see how I have written the first two parts with the same pattern
of structural tones, the only difference occurring in the second beat of bar four
between parts 1 and 2. This shows the underlying thematic link between
these parts, and therefore the adherence to the same structure in parts 1 and 2.
Furthermore, the structural tones show how the phrase structures are exactly
the same as the phrase structure in the canon of 2/4 marches. Phrase a to b,
with a recapitulation of a and then c, occurs in all the parts to close the tune.
There are a number of ways in which this tune can be considered traditional. Firstly the patterns of range of the parts exactly fits that of the modal complex of the canon. Secondly, the relationship between the parts can also be seen in the use of phrase e (bars 3 and 4 of the second part) in both the second part and in the last part. This fits in with the patterns of range, where the second and fourth parts show a link in the use of the same range.

Thirdly, the tune makes extensive use of the falling E C B A traditional motif from the canon of marches. This motif occurs at exactly the same point (the first beat of bar 2) in the first two parts. It also occurs in the last bar of every part in phrase c. The tune demonstrates traditional rhythms that are used in the canon of marches, and in fact uses the E C A emphatic motif, inverted to A C E in the second bar of the tune, and a further 3 times after this. It also uses a variation on the emphatic A B C A motif, in the third part, first beat; albeit altered to A C B A, but with identical rhythmic structure.

Finally, this tune exhibits typical double tonic structure, with the first and second phrases of each part alternating between the tonic and sub-tonic of A and B respectively. These aspects of the modal complex give this tune a traditional feel, as they all demonstrate typical behaviour for the modal complex of the 2/4 March. Compositions like this can be used as a reconstruction of musical grammars and also provide new material for the tradition. However, it is significant that although this tune is suitable for competition, I would not enter it. This is because of the context of
competition itself: I feel restricted by the conservative nature of competition hierarchies and would not want to be seen as an 'upstart'.

**Tune 3: The A/G mode tune**

Now we can examine one of the principal modes in piping on the basis of the research in Chapter 3 – the A/G mode tune. As shown in Chapter 3, the A/G mode is a very distinctive mode with its own particular characteristics. In summary the characteristics of A/G mode tunes are:

- A double-tonic arrangement of two contrasting pitch sets based around tonal centres of A and G; usually consonant groupings of A C E and more dissonant groupings of G B D.


- A fairly tense or strong emotional effect, resulting from the dissonance of G-centred sections against the drone.

I will now demonstrate how these features are employed in a typical A/G tune.

A/G mode tune

Simon McKerrell
In beginning ideas for the second part of this tune, I was conscious of the need to keep within the rhythmic framework laid out in the first part. For the second part I decided on this as a final version:

A-G tune second part

Here we can see that my tune follows the standard rules for the structure of an A/G tune (albeit only two parts), by using reflecting two-bar double tonic phrases based around A and G respectively. Furthermore, a number of the traditional motifs are present in this tune, including in bar 1 of the first part the E D C A motif, which is exclusive to this mode. It also uses the D C B G motif which is also a falling motif, although not common in 2/4 marches. The tune also uses conventional rhythmic schemes throughout, which aid the feeling of traditionality. However, it is a fairly light tune, and would probably not be suitable for competition, being better suited for teaching. Although I have only written two parts to this tune, they still fit into the traditional pattern of range for 2/4 marches. The first part concentrates on the lower range of the chanter scale and the second part reaches farther up the scale. Finally, both the first and the second parts of this tune use identical
structural tones throughout, with the exception of the bar 7; this further aids the internal unity of the tune.

This consideration of the aesthetic of tradition in new compositions demonstrates a way forward for the analyses of traditional musics. In further research, I would extend this method to studying how aesthetics manifest themselves in the process of composition. Perhaps by recording the process, insight could be gained into how the aesthetics of tradition are manipulated by composers.

Envoi

In almost every tune I play now, I notice motifs from this study jumping off the page at me. Before I began this thesis, I knew there was a grammar and that pipe tunes had a particular sound, but not why. I now understand that 'why', because I have discovered how pipe music is constructed. This has helped me, as a composer and as a player, to better understand these tunes for what they are, appreciating the genius of master composers and players. I feel that my insider musical knowledge has had a profound impact upon the methodology of this study, and in particular has been crucial to the use of mode as an analytical tool. For example, one must understand the performance practice of phrasing in order to know that motifs falling across the beat immediately change their function and significance;
that the formulation of pitch hierarchies takes musical judgement that is special to the insider; and that the investigation of traditionality is only achievable through knowing the traditional aesthetics.

I have demonstrated some of the melodic and social concepts relevant to performance, and modal traits that go into making pipe music sound like pipe music. I theoretically divided a competitive piping performance into three core elements that make up the overall framework: 1) the sound aesthetics; 2) the performers' social and melodic aesthetic values; and 3) the modal complex. Within each of these areas, are concepts such as pitch, phrasing and repertoire selection, that contribute to the formation and maintenance of individual identity amongst pipers. They are supported by the more fundamental aspects of performance, such as the common motifs and canon of tunes, that are standards to which all competitive pipers subscribe. These are all set within the complex web of tradition, based upon competition that affects piping in so many ways. I hope that some of the ideas presented here may be of value to other traditions apart from piping. I must stress that it is only in performance that these three combine and operate as a whole, providing us with a unique Scottish tradition of which I am proud to be a part.
N.B.: Where there is a multi-volume collection of music (such as P/M William Ross's 5 books of pipe music) I give the date of first publication to final publication of the last book (if known) in the bibliography. References in the text and appendices are referred to by first publication date, but specifying volume number. For example P/M W. Ross's third book, page 24 would be cited thus: (Ross, W. 1923:bk.3:24).


'Amateur'. 1818 The Bagpipe Preceptor. Edinburgh.


1950 “Prolegomena to a study of the Principal Melodic Families of British-American Folksong.”
*Journal of American Folklore* 63: 1-44.

Becker, Howard, S.

1986 *Writing for Social Scientists*

Becker, Judith.

1969 “The Anatomy of a Mode”
*Ethnomusicology*, May 1969.

Ben-Amos, Dan.

1984 "The seven Strands of Tradition: Varieties in its Meaning in American folklore Studies."

Blacking, John.

1967 *Venda Children’s Songs*
Johannesburg: Witwatersrand University Press.


1973 *How Musical is Man*

1987 *A common sense view of all music*
London: Cambridge University Press.

1995 *Music, Culture and Experience; selected papers of John Blacking.*
Chicago: The University of Chicago Press.

Blankenhorn, V.S.

1978 “Traditional and Bogus Elements in ‘MacCrimmon’s Lament’.”


Cadzen, Norman. 1971 “A simplified mode classification for traditional Anglo-American song tunes.” *Yearbook of the International Folk Music Council*


Campbell, Archibald. 1948 *The Kilberry Book of Ceol Mor* The Piobaireachd Society: The College of Piping, 16-24 Otago Street, Glasgow, G12 8JH.


Campbell, Jeannie. 2001 *Highland Bagpipe Makers* Edinburgh: Magnus Orr Publishing

1980  A Bibliography of Bagpipe Music
       Edinburgh

1987  The Highland Bagpipe and its Music
       Edinburgh: John Donald Publishers Ltd.
       (2nd edition 2002)

       The Piobaireachd Society: Scotland.

1995a "What can we learn about piobaireachd?"

       The Piping Times vol.48, no.1 pp.29-35.

2004 "In defence of set tunes"
       Piping Today, no.9, pp.22-23.

Chalmers, K.

1981 “The Ethnicity of Scottish Musical Composition”.
       Ph.D., Musicology, Queen’s University, Belfast.

Clayton, Martin and Trevor Herbert and Richard Middleton.

2003  The Cultural Study of Music, a critical introduction
       Routledge: Great Britain

Clifford, James and George Marcus. (eds.)

1986  Writing Culture: The Poetics and Politics of Ethnography
       University of California Press

Coleman, Jennie.

2003 “Ceòl Mòr of the South: Theme and variations on an immigrant music culture”
       in The Heather and the Fern: Scottish Migration & New Zealand Settlement.
       Edited by Tom Brooking and Jennie Coleman
| Collinson, Francis. | 1966 *The Traditional and National Music of Scotland*  
|---------------------|--------------------------------------------------------------------------|
|                     | 1975 *The Bagpipe. The History of a Musical Instrument*  
London. |
| Cooke, Peter R. | 1972 “Problems of notating pibroch: a study of ‘Maol Donn’”  
*Scottish Studies*, no.16, pp.41-59. |
|                     | 1976 “The Pibroch repertory: some research problems.”  
|                     | 1978 “Changing styles in pibroch playing. Cadence E’s and beats on A.”  
*International Piper*, vol.1, no.2,3. |
| Cornish, Eric E. | 1952 “The chanter scale”  
*The Piping Times* no.4, no.9. |
| Cothran, Kay. | 1973 “Participation in Tradition”  
| Cowdery, James. | 1990 *The Melodic Tradition of Ireland*  
Ohio: Kent State University Press. |
selected proceedings from the maynooth international Musicological Conference.  
| Dahlhaus, Carl. | 1982 *Esthetics of Music* (English edition)  
translated by William Austin.  
Cambridge University Press (originally pub. 1967 in German as *Musikästhetick*, Hans Gerig, Cologne). |


---------------


Dudley, Shannon. 2003 “Creativity and Control in Trinidad Carnival Competitions” The world of music vol.45(1)


<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Title</th>
<th>Publisher</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2003</td>
<td>&quot;Galax, Virginia’s “Old Fiddlers’ Convention”: The Virtues and Flaws of a Giant Fiddle Contest.&quot;</td>
<td></td>
</tr>
</tbody>
</table>

416
The World of music vol.45(1)

Goldstein, Kenneth. 1991 “Notes toward a European-American Folk Aesthetic. Lessons Learned from Singers and Storytellers I have Known” American Folklore vol.104, No.412.


Gunn, William. 1848 The Caledonian repository of music, adapted for the bagpipes. Glasgow, reprinted 2003 by The National Piping Centre, Glasgow.


<table>
<thead>
<tr>
<th>Author</th>
<th>Title/Dates</th>
<th>Publisher/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Henderson, Peter.</td>
<td>1888 <em>Henderson's Collection of Marches, Strathspeys, Reels, and Jigs</em>, To which is prefixed an Illustration of the Principles of Bagpipe Music.</td>
<td>Glasgow: Published by Peter Henderson.</td>
</tr>
<tr>
<td>Hermansson, Mats d.</td>
<td>2003 <em>From Icon to Identity, Scottish Piping &amp; Drumming in Scandinavia.</em></td>
<td>Sweden: Göteborg University, Department of Musicology &amp; Film Studies.</td>
</tr>
<tr>
<td>Jackson, George Pullen.</td>
<td>1937 <em>Spiritual folk-Songs of Early America</em></td>
<td>New York: J.J. Augustin</td>
</tr>
<tr>
<td></td>
<td>1943 <em>Down-East Spirituals and Others</em></td>
<td>New York: J.J. Augustin</td>
</tr>
<tr>
<td></td>
<td>1952 <em>Another Sheaf of White Spirituals</em></td>
<td>Gainesville: University of Florida Press</td>
</tr>
<tr>
<td>Jacques, E.F.</td>
<td>1899 “Modal Survivals in Folk Song.”</td>
<td><em>Journal of the Folk Song Society</em>, no.1, pp.4-6.</td>
</tr>
<tr>
<td>Kartomi, Margaret J, and Blum, Stephen.</td>
<td>1994 <em>Music-Cultures in Contact, Convergences and Collisions.</em></td>
<td></td>
</tr>
</tbody>
</table>

__________.


__________.


Lawless, Elaine J. 1992 “I was afraid someone like you...an outsider...would misunderstand” *American Folklore* Vol.105, No.417.

Leach, MacEdward and Coffin, Tristram P. 1961 *The Critics and the Ballad* Southern Illinois University Press


Lord, Albert B. 1960 *The Singer of Tales* Harvard University Press


__________.


MacDonald, Allan. 1996 “The Relationship between Piobaireachd and Gaelic Songs, its
implications on piobaireachd performance style.”
Edinburgh University: M.Litt thesis

2004 “Bringing the ‘big music’ back to the spotlight”.
Piping Today magazine Issue no.9

MacDonald, P/M Angus. 1995 The Collection vol.2
Glasgow: Isa Music

1998 “For the Good of Piping”
The Voice vol.27, no.3, pp.22-32, published by
the Eastern United States Pipe Band Association, Newark, USA.

MacDonald, Barry. 1996 “The idea of tradition examined in the
light of two Australian Musical Studies.”
Yearbook for traditional Music vol.28.

MacDonald, Donald. 1822 A collection of ancient martial music of
Caledonia called piobaireachd.
Edinburgh


MacInnes, Iain 1989 “The Highland Bagpipe: The Impact of
the Highland Societies of London and Scotland.”
Edinburgh University: M.Litt thesis

MacKay, Angus. 1843 (1872 fourth edition) The Piper’s
Assistant, a new collection of marches, quicksteps,
strathspeys, reels and jigs. Consisting of 155
tunes. Edited by Angus MacKay, piper to Her
Majesty. Author of Clan Pibrachd. &c &c.
Edinburgh: published by Alexander Glen & Son.


MacLennan, John. 1972 “Notices of Pipers”
MacLeod, Donald. 1954–n.d. [1974?] Pipe Major Donald MacLeod's Collection of music for the bagpipe 6 vols., Glasgow.


McLaughlin, Dermot. 1990 sleeve notes from the CD- Robbie Hannan Claddagh Records Ltd., CC53CD, Dublin, Ireland.


---[n.d.]--- The Seumas MacNeill collection of bagpipe music, Book 2. Glasgow: The College of Piping, 16-24 Otago Street, Glasgow, G12 8JH.


<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Title</th>
<th>Publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>MacNeill, Seumas and Frank Richardson.</td>
<td>1987</td>
<td><em>Piobaireachd and its Interpretation</em></td>
<td>Edinburgh.</td>
</tr>
<tr>
<td>Merriam, Alan P.</td>
<td>1964</td>
<td><em>The Anthropology of Music</em></td>
<td>USA: Northwestern University Press</td>
</tr>
<tr>
<td>Miller, Edward Kerr.</td>
<td>1981</td>
<td><em>An ethnography of singing: the use and meaning of song within a Scottish family</em></td>
<td>unpublished PhD Thesis University of Texas, Austin</td>
</tr>
<tr>
<td>Morrison, Donald.</td>
<td>1987</td>
<td>&quot;Tune of the month&quot;</td>
<td><em>The Piping Times</em> vol.39, no.6 (March).</td>
</tr>
</tbody>
</table>
Nettl, Bruno. 1983 The study of Ethnomusicology: Twenty-nine issues and Concepts
Chicago: University of Illinois Press

Nettl, Bruno. 1985 The Western Impact on World Music; Change, Adaptation, and survival.

Nettl, Bruno and Stephen Blum. 1968 “Towards the Comparative Study of the Structure of Traditional Repertoires.”

Chicago and London: The University of Chicago Press

Detroit: Information Coordinators

paper from the ESEM 1994 conference, internet address:
<http://www.music.ed.ac.uk/colloquiea/conferences/esem/lau.html>

Paterson, M. 2001 Selling Scotland: towards an intercultural approach to export marketing involving differentiation on the basis of “Scottishness”
University of Glasgow: PhD thesis.

Porter, James. 1967 “Analytical Aspects of The Conundrum”
2000-2005 "Mode (IV,1): Modal scales as a new musical resource."
Grove Dictionary Online ed. L. Macy
(Accessed 2000-2005),
<http://www.grovemusic.com>

Powers, Harold S. 1958 "Mode and Raga"
Musical Quarterly xliv

Grove Dictionary Online ed. L. Macy
(Accessed 2000-2005),
<http://www.grovemusic.com>


Edinburgh: Hugh MacPherson Ltd.

Edinburgh: Hugh MacPherson


Rice, Timothy. 1994 May It Fill Your soul: Experiencing Bulgarian Music University of Chicago Press: Chicago

(Foreward and chapter 1 by John Blacking)

Rosenberg, Neil V. 1985 Bluegrass, A History


Scots Guards Collection. see various, below.


Seattle, Matt. 1995 The Master Piper: Nine notes that shook the world. Published privately, available from Matt Seattle, 10 Hall Street, Galashiels, TD1 1PJ, Scotland.


Spalding, Anne 2004 Interview taken from Piper and Drummer online website: <www.piperanddrummer.com> date visited 30/03/2004.


Taylor, Jack. 2004 "Sound the Piobaireachd: Is it loud and clear enough?" The Voice vol.33, no.1 p.19, published by the Eastern United States Pipe Band Association, Newark, USA.

Thrasher, Allan. 2002 "Rethinking Highland bagpipe temperament: Preservation of the old European system?" Piping Today Issue 2, pp:14-18.


(various) 1983 The Gordon Highlanders Pipe Music Collection, vol.1


**Periodicals**

**Piper and Drummer**

**The Piping Times**
Edited by R. Wallace from Sept 1999 [Previously S. McNeill]. Published by The College of Piping, 16-24 Otago Street, Glasgow, G12 8JH. Monthly (October 1948 – continuing). [October is issue 1 in the year.]

**Piping Today**
Edited by Roddy MacLeod and Mike Paterson [Formerly published as Notes magazine before 2002]. Published by The National Piping Centre, 30-34 McPhater Street, Cowcaddens, Glasgow, G4 OHW. Quarterly, 1997 – continuing.

**The Piping World**
Edited by John Allen. Published by Donald Varella, James Coldren, 57 Clark Street, Glen Ridge, New Jersey, 07028, USA. Vol.1, no.1 September 1968 – n.d.?

**The Voice**
Appendix 1

Master Table of all motif occurrences
Guide to notation

This table displays the name of the tune, composer, the location/function of motif, the note(s) the motif leads to, and the mode of the tune. (See appendix 1 for the tables of occurrence for all motifs).

In these tables, an ‘r’ shows that the bar where a motif occurs is in the varied repeat or ‘second-timing’ of a part. Where the location of a motif is shown, the part (or measure) is signified with a ‘p’ and then the number of the part. The specific bar that the motif occurs in is shown after the part number and a colon. For example a motif occurring in the second part, in the first and third bars would be represented thus: ‘p2: 1,3.’

In the adjacent column I detail which notes the motif leads to, e.g. A, C (=leads to A and C). If the note the motif leads onto is a cut note then I will give that note and the note after which is a dotted note, representing the two like this: CtoE, FtohA- (leads to C cut note then E dotted, leads to F cut then high A).

In some motifs, one of the notes may vary from tune to tune, and this is represented by the ‘X’, representing an unspecific note.

The tables of occurrence form the basis for comparison of motifs. Knowing where a motif occurs, allows conclusions about its function. To aid this I often added comments in the ‘location and function of motif’ column. This helped considerably with identifying for example whether a motif is exclusively used within a phrase, or to link two phrases.
The following is a typical example of a tune entry in the table of occurrence for the falling C B A motif:

<table>
<thead>
<tr>
<th>Tune</th>
<th>Composer</th>
<th>Location of C B A motif</th>
<th>Leading to note? and function</th>
<th>Mode of tune</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lonach Gathering, The.</td>
<td>W. Grant</td>
<td>p1: 1, 5 p2: 5r</td>
<td>CtoE</td>
<td>A hexatonic</td>
</tr>
</tbody>
</table>

As can be seen, in *The Lonach Gathering*, the CBA falling motif occurs in part 1 in bars 1 and 5 leading to the cut note C and then E, dotted. It also occurs in the second part in bar 5 of the repeat, leading to the same notes, because this repeat is taken from the first part.
MASTER TABLE OF ALL MOTIFS:

The AECE band motif table can be found after the master table of entries below.

<table>
<thead>
<tr>
<th>motif</th>
<th>Tune</th>
<th>Composer</th>
<th>Location of E D C A motif</th>
<th>Leading to which notes?</th>
<th>Mode of tune</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABCA</td>
<td>Crags of Stirling, The.</td>
<td>Hugh MacKay</td>
<td>p1: 2, 6. hA again feels to me as if it is emphasising the A as part of phrase a, occurs on beat one.</td>
<td>A/G mode</td>
<td></td>
</tr>
<tr>
<td>ABCA</td>
<td>Leaving Lunga</td>
<td>J. Gordon</td>
<td>p2: 3 CtoE occurs as part of the main body of the second phrase, could be seen as emphasising A?</td>
<td>A hexatonic</td>
<td></td>
</tr>
<tr>
<td>ABCA</td>
<td>Angus Campbell’s Farewell to Stirling</td>
<td>P/M John MacDonald</td>
<td>p2: 5r p4: 6r C (falling motif) hA emphasises mode, here is replacing the A taorluath A beat.</td>
<td>A/G mode</td>
<td></td>
</tr>
<tr>
<td>ABCA</td>
<td>Conundrum, The.</td>
<td>P/M P.R. MacLeod</td>
<td>p3: 1, 5 C to E occurs on 2nd beat and emphasises A as part of the phrase.</td>
<td>A pentatonic</td>
<td></td>
</tr>
<tr>
<td>ABCA</td>
<td>Stornoway Highland Gathering</td>
<td>the Competing Pipers</td>
<td>p3: 2, 6. p4: 6r hA hA again used on first beat of bar 2 phrase a, to emphasise the A.</td>
<td>A hexatonic</td>
<td></td>
</tr>
<tr>
<td>ABCA</td>
<td>Millbank Cottage</td>
<td>W.D. Dumbreck</td>
<td>p2: 2, 6. p3: 2, 6. p4: 2, 6, 6r hA, hA. hA hA always occurs on beat 1 of bar 2 of phrase a, used to emphasise A, as part of the main body of the</td>
<td>A hexatonic</td>
<td></td>
</tr>
<tr>
<td>Above</td>
<td>Below</td>
<td>Middle</td>
<td>Right</td>
<td></td>
<td></td>
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<td>-------</td>
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<td></td>
</tr>
<tr>
<td>ABCA</td>
<td>Kantara to El Arish</td>
<td>Willie Fergusson</td>
<td>p1: 1, 5</td>
<td>CtoE used at start of tune to open a rising question phrase, this focuses on A as a strong opener.</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>ABCA</td>
<td>Braes of Brecklet, The.</td>
<td>Willie Lawrie</td>
<td>p1: 7, p3: 7, p4: 7</td>
<td>B B B here is part of the last phrase, and emphasises A as part of a rising sequence in closing tune. very clever, as closing section is enlarged version of the motif.</td>
<td>A pentatonic.</td>
</tr>
<tr>
<td>ABgrpC D</td>
<td>Abercairney Highlanders</td>
<td>Angus MacKay</td>
<td>p1: 1, 5, p3: 1, 5, 1r, 5r.</td>
<td>E Also the tune uses DCBAGABD figure in third bar all the way through. Do all these type of tunes use this?</td>
<td>A/G mode</td>
</tr>
<tr>
<td>ABgrpC D</td>
<td>Knightswood Ceilidh</td>
<td>Donald MacLeod</td>
<td>p3: 6</td>
<td>E</td>
<td>A minor mode</td>
</tr>
<tr>
<td>ABgrpC D</td>
<td>P/M John Stewart</td>
<td>G.S. MacLennan</td>
<td>p1: 3</td>
<td>CtoA</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>ABgrpC D</td>
<td>Arthur Bignold of Lochrosque</td>
<td>John MacColl</td>
<td>p4: 5r</td>
<td>CtoE no occurrence of descending DCBA motif</td>
<td>A/G mode</td>
</tr>
<tr>
<td>ABgrpC D</td>
<td>Jeannie Carruthers</td>
<td>John MacColl</td>
<td>p1: 3, p2: 3</td>
<td>E uses EDCB motif to lead into this motif, simple descent and rise. No DCBA motif.</td>
<td>A/G mode</td>
</tr>
<tr>
<td>ABgrpC D</td>
<td>Miss Elspeth Campbell</td>
<td>T. Douglas</td>
<td>p1: 1, 5, p2: 5r (as part 1)</td>
<td>E Uses a descending motif, E DBA to G as well.</td>
<td>A/G mode</td>
</tr>
<tr>
<td>ABgrpC D</td>
<td>Bonnie Ann</td>
<td>traditional</td>
<td>p2: 1, 5, 1r, 5r, p4: 1, 5, 1r, 5r.</td>
<td>E all occur on the 2nd beat of bar. Includes descending</td>
<td>A/G mode</td>
</tr>
<tr>
<td>ABgrpC D</td>
<td>Duchess of Edinburgh, The.</td>
<td>traditional</td>
<td>p1: 1, 3, 5.</td>
<td>DCBAGABD motif.</td>
<td>E, D, E. The D note it links to in bar 3 to 4 part one, is there because the motif is used in this case to link to the submode section. No use of DCBA motif.</td>
</tr>
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<tr>
<td>ABgrpC D</td>
<td>John MacDonald of Glencoe</td>
<td>Willie Lawrie</td>
<td>p4: 5r</td>
<td></td>
<td>E only used in repeat, and no use of DCBA motif.</td>
</tr>
<tr>
<td>ABgrpC D</td>
<td>Mrs MacDonald of Dunach</td>
<td>Willie Lawrie</td>
<td>p1: 6. p2: 6 p4: 6r (as part2)</td>
<td></td>
<td>E</td>
</tr>
<tr>
<td>BAG</td>
<td>Dugald MacColl's Farewell to France</td>
<td>John MacColl</td>
<td>p1: 3, p2: 5r as part1 p4: 5r as part 1</td>
<td>hG also employs motif from C.</td>
<td></td>
</tr>
<tr>
<td>BAG</td>
<td>Renfrewshire Militia, The.</td>
<td>P/M J. MacKay</td>
<td>p1: 1, 5. p2: 5r as part1 p4: 5r as part 1</td>
<td>A A again occurs in the second beat of bar 1.</td>
<td></td>
</tr>
<tr>
<td>BAG</td>
<td>Miss Elspeth Campbell</td>
<td>T. Douglas</td>
<td>p1: 3 p2: 3</td>
<td>E E The occurrence of the motif in the same structural position is because of the repetitive structure of the tune; using phrase2 from the first part for parts 1 &amp; 2.</td>
<td></td>
</tr>
<tr>
<td>Bag</td>
<td>Tune Details</td>
<td>Mode</td>
<td>Development Notes</td>
<td></td>
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<tr>
<td>BAG</td>
<td>Bonnie Ann</td>
<td>A/G</td>
<td>Also uses motif from C.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBA</td>
<td>Laird of Luss, The.</td>
<td>A/M Ross</td>
<td>p4: 2,6. hA, CtoE. The CtoE is the opening of the final two bars of the tune, as in other tunes with this motif.</td>
<td></td>
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</tr>
<tr>
<td>CBA</td>
<td>Duke of Roxburgh's Farewell to Black Mount Forest.</td>
<td>Angus MacKay</td>
<td>p1: 1, 5. p2: 5r. CtoA. CtoA (r). Again the motif occurs in bar 1 after the A taorluath, is this a bigger motif in itself? Interesting elaboration of motif in part 4r.</td>
<td></td>
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</tr>
<tr>
<td>CBA</td>
<td>Donald MacLean's Farewell to Oban</td>
<td>Archibald MacNeill</td>
<td>p1: 1, 5. E motif actually on 1st beat of bar 1.</td>
<td></td>
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</tr>
<tr>
<td>CBA</td>
<td>91st at Modder River, The.</td>
<td>Archie MacNab/ William Robb.</td>
<td>p1: 4 p2: 4 B F (B on r.) links from bar 4 to phrase at bar 5.</td>
<td></td>
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</tr>
<tr>
<td>CBA</td>
<td>Captain Campbell of Drum-a-Voisk</td>
<td>D. Galbraith</td>
<td>p1: 1, 3, 5. CtoE, B, CtoE. occurs again on beat 2 of bar 1, after A taorluath. Also shows the same development of the motif to CBCA, in repeat of last part like Duke of Roxburgh's.</td>
<td></td>
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</tr>
<tr>
<td>CBA</td>
<td>Braes of Castle Grant, The.</td>
<td>D. MacDonald/G.S. MacLennan</td>
<td>p1: 1, 5 p2: 5r E E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBA</td>
<td>Donald MacLellan of Rothesay.</td>
<td>Donald MacLeod</td>
<td>p1: 1, 4, 5. p2: 4, 5r p4: 5r B F, B. CtoB.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBA</td>
<td>P/M John Stewart</td>
<td>G.S. MacLennan</td>
<td>p1: 1, 3, 5. p2: 3. A F this is different.</td>
<td></td>
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</tr>
<tr>
<td>CBA</td>
<td>Stirlingshire Militia, The.</td>
<td>Hugh MacKay</td>
<td>p1: 1 p3: 2, 6, 6r.</td>
<td>A A, F(r). In third part this links between phrases, again into the final phrase.</td>
<td>A pentatonic</td>
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<tr>
<td>CBA</td>
<td>Crags of Stirling, The.</td>
<td>Hugh MacKay</td>
<td>p3: 1, 5.</td>
<td>E</td>
<td>A/G mode Also uses same motif off B.</td>
</tr>
<tr>
<td>CBA</td>
<td>Dugald MacColl's Farewell to France</td>
<td>John MacColl</td>
<td>p1: 5</td>
<td>CtoE.</td>
<td>A/G mode also employs same motif off B.</td>
</tr>
<tr>
<td>CBA</td>
<td>John MacMillan of Barra</td>
<td>Norman MacDonald</td>
<td>p1: 1, 4, 5. p2: 4, 5r. p3: 3. p4: 4, 5r.</td>
<td>A, B, A. B, CtoE(r). B. CtoE(r). Bar 4 examples on first beat, and also bar 1, these bar 4 motifs serve to link to the B structural tone at bar 4.</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>CBA</td>
<td>Major Manson's Farewell to Clachantrushal</td>
<td>P/M Donald MacLean</td>
<td>p4: 2, 6.</td>
<td>F, CtoE. Both on the 2nd beat of bar, and again bar 6 motif links to final phrase.</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>CBA</td>
<td>South Hall</td>
<td>P/M John MacLellan</td>
<td>p1: 1, 5 p2: 5r. as part1.</td>
<td>CtoE Again, in part 1, it occurs on second beat of first bar.</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>CBA</td>
<td>Taking of Beaumont Hamel, The.</td>
<td>P/M John MacLellan</td>
<td>p1: 1, 5 p2: 5r (as part1)</td>
<td>CtoA CtoA</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>CBA</td>
<td>Doctor E.G (?) MacKinnon</td>
<td>P/M Peter MacLeod</td>
<td>p4: 2, 6.</td>
<td>C</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>CBA</td>
<td>P/M William MacLean</td>
<td>P/M Peter MacLeod</td>
<td>p1: 1, 5. p2: 2, 6, 2r, 5r.</td>
<td>CtoE C, F, CtoE. Again the second beat of</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>Source</td>
<td>Tune</td>
<td>Setting/Pipe</td>
<td>No. of Notes</td>
<td>Mode/Formation</td>
<td>Details</td>
</tr>
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<tr>
<td>CBA</td>
<td>Glenfinnan Highland Gathering, The</td>
<td>Ronald Lawrie</td>
<td>p1: 1,3,5, p2: 3, p4: 5r</td>
<td>F, CtoE, F CtoE</td>
<td>A hexatonic</td>
</tr>
<tr>
<td></td>
<td>Angus Campbell’s Farewell to Stirling</td>
<td>setting by P/M John MacDonald</td>
<td>p1: 1, 5, p2: 1, 2, 5, 5r, 6, p4: 5r</td>
<td>A, A, E, A, E, A.</td>
<td>A/G mode also uses same motif off B. Uses same elaboration of motif in part 3.</td>
</tr>
<tr>
<td>CBA</td>
<td>Stornoway Highland Gathering</td>
<td>The Competing pipers.</td>
<td>p4: 2, 6</td>
<td>hA</td>
<td>This again leads to the first phrase and the closing phrase. A hexatonic.</td>
</tr>
<tr>
<td>CBA</td>
<td>Duchess of Edinburgh, The</td>
<td>trad.</td>
<td>p1: 2, 6, p2: 2, 6, 6r, p3: 2, 6, p4: 2, 6, 6r.</td>
<td>CtoE</td>
<td>hG, CtoE G, CtoE. hG, CtoE. provides a link between phrases and/ mode-sub mode, also includes a long note for phrasing emphasis? A/G mode also employs the same motif from B.</td>
</tr>
<tr>
<td>CBA</td>
<td>Bonnie Ann Traditional</td>
<td></td>
<td>p1: 2.</td>
<td>G</td>
<td>A/G mode Also uses motif from B.</td>
</tr>
<tr>
<td>CBA</td>
<td>Lonach Gathering, The.</td>
<td>W. Grant</td>
<td>p1: 1, 5 p2: 5r</td>
<td>CtoE CtoE (as part1)</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>CBA</td>
<td>Braes of Brecklet, The.</td>
<td>Willie Lawrie</td>
<td>p1: 1, 3, 5.</td>
<td>A occurs on beat 1 of bar 1.</td>
<td>A pentatonic</td>
</tr>
</tbody>
</table>

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| DCBA   | MacLean of Pennycross | A. Fergusson | p1: 4  
|       |                      |             | p2: 4  
|       |                      |             | p3: 4  
|       |                      |             | p4: 4  
|       |                      |             | B     
|       |                      |             | leads to struc. tone bar 4.  
|       |                      |             | A hexatonic |
| DCBA   | Donald MacLean’s Farewell to Oban | Archibald MacNeill | p4: 6r |
|       |                      |             | C     |
|       |                      |             | A hexatonic |
| DCBA   | Crags of Stirling, The. | Hugh MacKay | p1: 1, 5 |
|       |                      |             | A     |
|       |                      |             | A/G mode |
| DCBA   | Dugald MacColl’s Farewell to France | John MacColl | p1: 1 |
|       |                      |             | CtoE  |
|       |                      |             | A/G mode |
| DCBA   | Kantara to El Arish | Willie Fergusson | p2: 2  
|       |                      |             | p3: 2  
|       |                      |             | C     |
|       |                      |             | A hexatonic |
| DGBD   | Knightswood Ceilidh, The. | Donald MacLeod | p3: 3  
|       |                      |             | E     |
|       |                      |             | A minor mode |
| DGBD   | Clan MacColl, The. | John MacColl | p4: 3, 3r, 
|       |                      |             | DtohG |
|       |                      |             | uses same motif from E. |
|       |                      |             | A/G mode |
| DGBD   | Pap of Glencoe, The. | Willie Lawrie | p4: 3, 4, 
|       |                      |             | hG, E same motif from E. |
|       |                      |             | A/G mode |
| DGBG   | Duchess of Edinburgh, The. | anon. | p1: 4  
|       |                      |             | p2: 4  
|       |                      |             | p3: 3  
|       |                      |             | p4: 4 diff. rhythm. |
|       |                      |             | B     |
|       |                      |             | B     |
|       |                      |             | BtoD  |
|       |                      |             | B     |
|       |                      |             | uses same motif from E. |
|       |                      |             | A/G mode |
| DGBG   | Rosshire Volunteers, The. | John Connon | p3: 3, 4, 
|       |                      |             | G, E. |
|       |                      |             | uses same motif from E. |
|       |                      |             | A/G mode |
|       |                      |             | BtoD  |
|       |                      |             | also uses same motif off E. |
|       |                      |             | A/G mode |
|       |                      |             | G, A links back to phrase a. |
|       |                      |             | A minor mode |
| DGBG   | Colin Thomson | R. Campbell | p3: 3  
|       |                      |             | EtohG |
|       |                      |             | also uses a similar motif: E A B G, throughout tune, because no C? |
|       |                      |             | A minor mode |
| DGBG   | Miss Elspeth Campbell | T. Douglas | p3: 3  
|       |                      |             | E     |
|       |                      |             | also uses same motif from E. |
|       |                      |             | A/G mode |
| DGBG   | Bonnie Ann | traditional | p4: 4r  
<p>|       |                      |             | hG     |
|       |                      |             | also uses same motif from E |
|       |                      |             | A/G mode |</p>
<table>
<thead>
<tr>
<th>DGBG</th>
<th>Pap of Glencoe, The</th>
<th>Willie Lawrie</th>
<th>p1: 3, p2: 3, p3: 3, 4</th>
<th>D</th>
<th>D, A uses same motif from E.</th>
<th>A/G mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>EACA</td>
<td>Captain Campbell of Drum-a-Voisk</td>
<td>D. Galbraith</td>
<td>p3: 1, 2, 3, 5, 6.</td>
<td>F, A, B F A. interesting tune, it builds the third part around this motif. Also, often preceded by an A taorluath, is this common?</td>
<td>A pentatonic</td>
<td></td>
</tr>
<tr>
<td>EACA</td>
<td>John MacDonald's Welcome to South Uist</td>
<td>D. MacMillan</td>
<td>p3: 2, 6</td>
<td>F leads into last phrase.</td>
<td>A hexatonic</td>
<td></td>
</tr>
<tr>
<td>EACA</td>
<td>Donald MacLellan of Rothesay</td>
<td>Donald MacLeod</td>
<td>p3: 3</td>
<td>CtoE</td>
<td>B/A mode</td>
<td></td>
</tr>
<tr>
<td>EACA</td>
<td>Lord Alexander Kennedy</td>
<td>J. Honeyman</td>
<td>p4: 1, 3, 5</td>
<td>F, C, F.</td>
<td>A hexatonic</td>
<td></td>
</tr>
<tr>
<td>EACA</td>
<td>Renfrewshire Militia, The.</td>
<td>P/M J. MacKay</td>
<td>p1: 1, 5, p2: 5r, p4: 5r</td>
<td>B</td>
<td>B uses same motif from D.</td>
<td>A minor mode</td>
</tr>
<tr>
<td>EACA</td>
<td>P/M William MacLean</td>
<td>P/M Peter MacLeod</td>
<td>p1: 2, 6, p2: 6r</td>
<td>F</td>
<td>A hexatonic</td>
<td>A/G mode</td>
</tr>
<tr>
<td>EACA</td>
<td>Miss Elspeth Campbell</td>
<td>T. Douglas</td>
<td>p3: 1, 5, p4: 5r.</td>
<td>E</td>
<td>E uses same motif from D.</td>
<td>A/G mode</td>
</tr>
<tr>
<td>EACA</td>
<td>Bonne Ann</td>
<td>Traditional</td>
<td>p4: 2r</td>
<td>hA falling motif, also contains same motif from D.</td>
<td>A/G mode</td>
<td></td>
</tr>
<tr>
<td>EACA</td>
<td>Lonach Gathering, The.</td>
<td>W. Grant</td>
<td>p2: 7r.</td>
<td>p4: 7r</td>
<td>F</td>
<td>F</td>
</tr>
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</tr>
<tr>
<td>EACA</td>
<td>Leaving Glenurquhart</td>
<td>W. MacDonald</td>
<td>p1: 3.</td>
<td>p4: 1, 2, 5, 6, 1r, 2r, 5r, 6r.</td>
<td>C to F:</td>
<td>D, A, D, B, D, F, D, B.</td>
</tr>
<tr>
<td>EACA</td>
<td>Millbank Cottage</td>
<td>W.D. Dumbrack</td>
<td>p3: 1, 5.</td>
<td>p4: 5r.</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>EACA</td>
<td>Clan MacRae Society, The.</td>
<td>Willie Ferguson</td>
<td>p3: 3</td>
<td>C</td>
<td></td>
<td>A pentatonic</td>
</tr>
<tr>
<td>EACA</td>
<td>Pap of Glencoe, The.</td>
<td>Willie Lawrie</td>
<td>p2: 1, 5.</td>
<td>hA uses same motif from D.</td>
<td>A/G mode</td>
<td></td>
</tr>
<tr>
<td>EACE</td>
<td>Laird of Luss, The.</td>
<td>A. M. Ross</td>
<td>p3: 2</td>
<td>C</td>
<td></td>
<td>A hexatonic</td>
</tr>
<tr>
<td>EACE</td>
<td>91st at Modder River</td>
<td>Archie MacNab</td>
<td>p3: 3, p4: 3.</td>
<td>F to hA</td>
<td>F to hA</td>
<td>B/A mode</td>
</tr>
<tr>
<td>EACE</td>
<td>Braes of Castle Grant, The.</td>
<td>D. MacDonald/G.S. MacLennan</td>
<td>p1: 1, 5, p2: 5r</td>
<td>hA</td>
<td>hA</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>EACE</td>
<td>John MacDonald's Welcome to South Uist</td>
<td>D. MacMillan (Donald?)</td>
<td>p2: 2, 6, p4: 2, 6, 6r.</td>
<td>F</td>
<td>F</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>EACE</td>
<td>Stirlingshire Militia, The.</td>
<td>Hugh MacKay</td>
<td>p3: 5r</td>
<td>F</td>
<td></td>
<td>A pentatonic</td>
</tr>
<tr>
<td>EACE</td>
<td>Lord Alexander Kennedy</td>
<td>J. Honeyman</td>
<td>p2: 1, 5.</td>
<td>F</td>
<td></td>
<td>A hexatonic</td>
</tr>
<tr>
<td>EACE</td>
<td>Rossire Volunteers, The.</td>
<td>John Connon</td>
<td>p2: 6r, p3: 6, p4: 2, 6, 6r.</td>
<td>hA</td>
<td>hA</td>
<td>A/G mode</td>
</tr>
<tr>
<td>EACE</td>
<td>John MacFadyen of Melfort</td>
<td>John MacColl</td>
<td>p4: 6r.</td>
<td>F</td>
<td></td>
<td>A pentatonic</td>
</tr>
<tr>
<td>EACE</td>
<td>Clan MacColl, The.</td>
<td>John MacColl</td>
<td>p4: 1, 5, 1r</td>
<td>E to hA, hG uses same motif from D.</td>
<td>A/G mode</td>
<td></td>
</tr>
<tr>
<td>EACE</td>
<td>Hugh Kennedy M.A., B.Sc.</td>
<td>P/M P.R. MacLeod</td>
<td>p1: 5,</td>
<td>hA</td>
<td></td>
<td>A/G mode</td>
</tr>
<tr>
<td>EACE</td>
<td>John MacDonald of Glencoe</td>
<td>Willie Lawrie</td>
<td>p4: 6r</td>
<td>F</td>
<td></td>
<td>A/G mode</td>
</tr>
</tbody>
</table>
| EACE     | Pap of Glencoe, The. | Willie Lawrie | p1: 2  
p3: 2, 4.  
p4: 1, 2, 4, 5. | D lead into phrase2  
D lead into phrase2  
hA, D same mot.  
uses same motif from D. | A/G mode |
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>EACE</td>
<td>Brigadier General Cheape of Tiroran</td>
<td>Willie Ross</td>
<td>p4: 2, 6</td>
<td>hA fall. motif</td>
<td>A/G mode</td>
</tr>
</tbody>
</table>
| ECA      | 71st Highlanders, The. | Hugh MacKay | p1: 1, 5  
p2: 1, 5, 5r. | CtoE  
CtoE occurs on beat 2 | A hexatonic |
| ECA      | Stirlingshire Militia, The. | Hugh MacKay | p1: 2, 6 | A | A pentatonic |
| ECA      | Crags of Stirling, The. | Hugh MacKay | p3: 1, 5 | C  
uses same motif from D. used here to emphasise the particular note E in a rising and falling sequence in phrase a. | A/G mode |
| ECA      | Lord Alexander Kennedy | J. Honeyman | p4: 2, 6 | D, CtoE  
links into phrase b and c, from a. | A hexatonic |
| ECA      | Rosshire Volunteers, The. | John Connon | p1: 1, 2, 5. | A, D, A  
uses same motif from D. | A/G mode |
| ECA      | Argyllshire Gathering, The. | John MacColl | p1: 2  
p2: 2  
p3: 2  
p4: 2 | E  
hG  
G  
this motif links into sub-mode G and uses same motif from D. | A/G mode |
| ECA      | Clan MacColl, The. | John MacColl | p2: 5. | hA  
used here to emphasise the note E. | A/G mode |
| ECA      | John MacMillan of Barra | Norman MacDonald | p1: 3, 7.  
p2: 3, 7, 7r.  
p3: 7.  
p4: 7, 7r. | A, B  
A, B, B  
B  
B, B. | A pentatonic |
| ECA      | Glenfinnan Highland Gathering, The. | Ronald Lawrie | p1: 7  
p2: 1, 5, 7.  
p3: 7  
p4: 7, 7r. | D  
F, F D.  
D  
D used as part of the last closing phrase to emphasise E as part of a descending | A hexatonic |
<table>
<thead>
<tr>
<th>ECA</th>
<th>Highland Wedding, The.</th>
<th>traditional</th>
<th>p2: 1, 5</th>
<th>D here the note E is emphasised and the tachum feels like an &quot;and&quot; into the next bar.</th>
<th>A hexatonic</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECA</td>
<td>Lonach Gathering, The.</td>
<td>W. Grant</td>
<td>p1: 3</td>
<td>F</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>ECA</td>
<td>Leaving Glenurquhart</td>
<td>W. MacDonald</td>
<td>p1: 1, 5, 1r, 5r.</td>
<td>A</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>ECBA</td>
<td>Donald MacLean's Farewell to Oban</td>
<td>Archibald MacNeill</td>
<td>p1: 4, p4: 4</td>
<td>links to the B structural tone at end of bar 4</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>ECBA</td>
<td>P/M John Stewart</td>
<td>G.S. MacLennan</td>
<td>p1: 7, p2: 7</td>
<td>C always links to final bar, closing C A motif.</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>ECBA</td>
<td>Willie Gray's Farewell to the Glasgow Police</td>
<td>James MacDonald</td>
<td>p3: 3</td>
<td>F leads to E struc. tone at bar 4.</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>ECBA</td>
<td>John MacFadyen of Melfort</td>
<td>John MacColl</td>
<td>p4: 6r</td>
<td>CtoE links into closing phrase</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>ECBA</td>
<td>Stornoway Highland Gathering, The.</td>
<td>The Competing pipers.</td>
<td>p2: 1, 3, 5</td>
<td>hA</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>ECBA</td>
<td>Clan MacRae Society, The.</td>
<td>W. Fergusson</td>
<td>p1: 2, 6, p4: 2, 3, 6(&amp;r)</td>
<td>C always links from the phrase A last beat into phrase B or C (closing phrase).</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>ECBA</td>
<td>Kantara to El Arish</td>
<td>Willie Fergusson</td>
<td>p1: 4, p2: 4</td>
<td>B clear link to B struc. tone at bar 4.</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>EDCA</td>
<td>Mrs John MacColl</td>
<td>John MacColl</td>
<td>p1: 2, p2: 2,</td>
<td>D</td>
<td>A/G heptatonic</td>
</tr>
<tr>
<td>EDCA</td>
<td>Miss Elspeth Campbell</td>
<td>T. Douglas</td>
<td>p1: 2, 6</td>
<td>hA</td>
<td>A/G mode</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>p2: 6r (as part l)</td>
<td>hA, E, hG</td>
<td></td>
</tr>
<tr>
<td><strong>EDCA</strong></td>
<td>Bonnie Ann</td>
<td>traditional</td>
<td>p3: 2, 6 p4: 6r</td>
<td>hG (as part 3)</td>
<td>A/G mode</td>
</tr>
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<tr>
<td><strong>EDCA</strong></td>
<td>Brigadier General Cheape of Tiroran</td>
<td>Willie Ross</td>
<td>p3: 2, 6</td>
<td>CtoE, C links from one phrase to another on last beat.</td>
<td>A/G mode</td>
</tr>
<tr>
<td><strong>EFhGE</strong></td>
<td>The Hills of Kintail</td>
<td>Donald McLeod</td>
<td>p1: 7 p2: 7 p3: 1, 5, 7. p4: 7</td>
<td>D D D D</td>
<td>A minor mode</td>
</tr>
<tr>
<td><strong>EFhGE</strong></td>
<td>Edinburgh City Police Pipe Band</td>
<td>Roderick Campbell</td>
<td>p1: 6 p2: 2, 4, 6, p3: 4, 6 p4: 4, 6.</td>
<td>hA. hA, F F, hA. F, hA.</td>
<td>A minor mode</td>
</tr>
<tr>
<td><strong>FECA</strong></td>
<td>Major Manson's Farewell to Clachantrushal</td>
<td>D. MacLean</td>
<td>p1: 3 p2: 3 p3: 3</td>
<td>CtoE CtoE CtoE leads through to B structural tone at bar 4.</td>
<td>A pentatonic</td>
</tr>
<tr>
<td><strong>FECA</strong></td>
<td>Donald MacLellan of Rothesay</td>
<td>Donald MacLeod</td>
<td>p3: 4</td>
<td>B used in bar 4 as sub-mode links to phrase A again.</td>
<td>B/A mode</td>
</tr>
<tr>
<td><strong>FECA</strong></td>
<td>Lord Alexander Kennedy</td>
<td>J. Honeyman</td>
<td>p1: 3r p2: 3r p3: 3r</td>
<td>always C leads through C to B structural tone bar 4.</td>
<td>A/D mode Or is it in fact A hexatonic mode?</td>
</tr>
<tr>
<td><strong>FECA</strong></td>
<td>John MacFadyen of Melfort</td>
<td>John MacColl</td>
<td>p3: 2, 5 p4: 2, 6, 2r</td>
<td>E hA in this tune, it links from the end of one phrase into the start of another.</td>
<td>A pentatonic</td>
</tr>
<tr>
<td><strong>FECA</strong></td>
<td>Major Manson's Farewell to Clachantrushal</td>
<td>P/M Donald MacLean</td>
<td>p1: 3, p2: 3, p3: 3,</td>
<td>CtoE CtoE CtoE</td>
<td>A pentatonic</td>
</tr>
<tr>
<td><strong>FECA</strong></td>
<td>Dr. E.G. MacKinnon</td>
<td>P/M P.R. MacLeod</td>
<td>p2: 1, 3, 5. p4: 3,</td>
<td>CtoE, B. B leads to B structural tone in parts 2 and 4.</td>
<td>A pentatonic</td>
</tr>
<tr>
<td><strong>FECA</strong></td>
<td>P/M William</td>
<td>P/M Peter</td>
<td>p1: 4</td>
<td>B</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>FECA</td>
<td>Highland Wedding, The.</td>
<td>traditional</td>
<td>p2: 3, 4</td>
<td>D links into the structural tone B in bar 4.</td>
<td>A hexatonic</td>
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<tr>
<td>FECA</td>
<td>Leaving Glenurquhart</td>
<td>W. MacDonald</td>
<td>p1: 2, 6, 2r, 6r. p3: 2, 6</td>
<td>C, B hA, B, hA, B C, B</td>
<td>A hexatonic</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Like in John MacFadyen of Melfort, the motif links phrases, and is the last beat of one into another.</td>
<td></td>
</tr>
<tr>
<td>FECA</td>
<td>Lonach Gathering, The.</td>
<td>W. Grant</td>
<td>p3: 3, p4: 3</td>
<td>C C</td>
<td>A hexatonic</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>leads through C to B structural tone bar 4.</td>
<td></td>
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<tr>
<td>FECA</td>
<td>Braes of Brecklet, The.</td>
<td>Willie Lawrie</td>
<td>p2: 2, 6, 6r</td>
<td>hA, E</td>
<td>A pentatonic</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>links into second phrase of part 2.</td>
<td></td>
</tr>
<tr>
<td>FECE</td>
<td>Laird of Luss</td>
<td>A.M. Ross</td>
<td>p4: 1, 3, 5</td>
<td>A, B, A, occurs on beat 2 after same motif from hA.</td>
<td>A hexatonic</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Emphatic.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>occurs as part of a descending phrase sequence and on last beat of second last phrase.</td>
<td></td>
</tr>
<tr>
<td>FECE</td>
<td>91st at Modder River, The.</td>
<td>Archie MacNab or William Robb</td>
<td>p4: 1, 3, 5</td>
<td>FtohA</td>
<td>B/A mode</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>occurs on beat 2.</td>
<td></td>
</tr>
<tr>
<td>FECE</td>
<td>Braes of Castle Grant, The.</td>
<td>D. MacDonald/ G.S. MacLennan</td>
<td>p2: 1, 5, p4: 1, 5</td>
<td>D F</td>
<td>A hexatonic</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>In both parts occurs after long emphases hAs, and is definitely emphasising the F, all occur beat 2.</td>
<td></td>
</tr>
<tr>
<td>FECE</td>
<td>P/M John Stewart</td>
<td>G.S. MacLennan</td>
<td>p4: 1, 5</td>
<td>F</td>
<td>A hexatonic</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Identical opening bar to Southall: hA grip emphatic first beat. Also occurs on beat 2.</td>
<td></td>
</tr>
<tr>
<td>FECE</td>
<td>Inveran</td>
<td>G.S. MacLennan</td>
<td>p2: 2</td>
<td>F</td>
<td>A pentatonic</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Occurs on beat 2. Feels as though a</td>
<td></td>
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<tr>
<td>FECE</td>
<td>Leaving Lunga</td>
<td>J. Gordon</td>
<td>p4: 2, 6.</td>
<td>hA, C, occurs on last beat of phrase and emphasises F.</td>
<td>A hexatonic</td>
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<tr>
<td>FECE</td>
<td>Willie Gray’s Farewell to the Glasgow Police</td>
<td>James MacDonald</td>
<td>p1: 3. p2: 1, 5</td>
<td>F, F occurs on beat 2 of bar. Not a very good tune!</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>FECE</td>
<td>South Hall</td>
<td>P/M John MacLellan</td>
<td>p4: 1, 2, 5</td>
<td>A, hA, A, occurs on beat 2 of bar, after a strong hA and grip, essentially fulfilling the same function as the hA motif, emphasising the hA on the first beat.</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>FECE</td>
<td>Taking of Beaumont Hamel, The.</td>
<td>P/M John MacLellan</td>
<td>p4: 1, 5</td>
<td>A, comes after same motif from hA. Same emphatic function.</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>FECE</td>
<td>Clan MacRae Society, The.</td>
<td>W. Fergusson</td>
<td>p2: 1, 5</td>
<td>F, occurs on beat 2, after a long hA, and emphasises F.</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>FECE</td>
<td>Leaving Glenurquhart</td>
<td>W. MacDonald</td>
<td>p4: 3r.</td>
<td>A, occurs on first beat of phrase b, emphasises F, also feels as though it is just filling out, as though several ideas would work here?</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>FECE</td>
<td>Kantara to El. Arish</td>
<td>Willie Fergusson</td>
<td>p4: 2, 4.</td>
<td>E, A, uses same motif from hA, used to emphasise F as part of a descending sequence in phrase a, occurs on beat 1.</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>FECE</td>
<td>John MacColl’s march to Kilbowie Cottage</td>
<td>Willie Lawrie</td>
<td>p1: 2, 4 p2: 6r p4: 6r</td>
<td>A, F, F, F occurs on last beat of phrase a, as a link into last phrase, and emphasises F.</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>Tune</td>
<td>Performer</td>
<td>Location</td>
<td>Mode</td>
<td>Function</td>
<td>Details</td>
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<tr>
<td>Abercarny Highlanders, The.</td>
<td>Angus MacKay</td>
<td>p1: 3, 3r. p2: 3, 3r p3: 3, 3r.</td>
<td>A/G</td>
<td>always hG emphasises G and links to the B struct. tone at bar 4</td>
<td></td>
</tr>
<tr>
<td>Angus Campbell’s Farwell to Stirling</td>
<td>P/M John MacDonald</td>
<td>p2: 3</td>
<td>A/G</td>
<td>B Occurs also on A in this tune. Again emphasises the note G as part of the phrase.</td>
<td></td>
</tr>
<tr>
<td>Royal Scottish Pipers Society</td>
<td>R. Campbell</td>
<td>p2: 3, 3r.</td>
<td>F major</td>
<td>hG same position as other two tunes, and fulfils same function-emphatic.</td>
<td></td>
</tr>
<tr>
<td>Glenfinnan Highland Gathering, The.</td>
<td>Ronald Lawrie</td>
<td>p2: 1, 5</td>
<td>A hexatonic</td>
<td>E only occurrence of this motif</td>
<td></td>
</tr>
<tr>
<td>Bonnie Ann traditional</td>
<td></td>
<td>p4: 2, 6</td>
<td>A/G</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>The Braes of Brecklet</td>
<td>Willie Lawrie</td>
<td>p2: 3.</td>
<td>A pentatonic</td>
<td>C to E</td>
<td></td>
</tr>
<tr>
<td>Brigadier General Cheape of Tiroran</td>
<td>Willie Ross</td>
<td>p4: 2, 6.</td>
<td>A/G</td>
<td>hA, C. links phrase a to phrase b and c.</td>
<td></td>
</tr>
<tr>
<td>Duke of Roxburgh’s Farewell to Black Mount Forest, The.</td>
<td>Angus Mackay</td>
<td>p4: 1, 5</td>
<td>A pentatonic</td>
<td>F (same r-c motif) again occurs on beat 1, is used as part of a A F F A structure to the phrase a. This emphasises the hA of the motif.</td>
<td></td>
</tr>
<tr>
<td>Stirlingshire Militia, The.</td>
<td>Hugh MacKay</td>
<td>p4: 1, 2, 3, 5, 6.</td>
<td>A pentatonic</td>
<td>A, F, A, A, F. always used emphatically throughout this</td>
<td></td>
</tr>
<tr>
<td>hAECE</td>
<td>Rosshire Volunteers, The.</td>
<td>John Connon</td>
<td>p4: 1, 5</td>
<td>A occurs on beat 1 again. Strong emphatic function</td>
<td>A/G mode</td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------</td>
<td>-------------</td>
<td>----------</td>
<td>-------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>hAECE</td>
<td>John MacFadyen of Melfort</td>
<td>John MacColl</td>
<td>p4: 1, 3, 5, (&amp; repeat)</td>
<td>A Strong emphatic feel to it, again first beat of bar 1.</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>hAECE</td>
<td>Young MacGregor, The.</td>
<td>John MacGregor Murray</td>
<td>p2: 1, 5</td>
<td>hA occurs on 2nd beat of bar after a grip.</td>
<td>A heptatonic</td>
</tr>
<tr>
<td>hAECE</td>
<td>Taking of Beaumont Hamel, The.</td>
<td>P/M John MacLellan</td>
<td>p4: 1, 5</td>
<td>F (same r-c motif) again same opening first bar, occurs on first beat again.</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>hAECE</td>
<td>Hugh Kennedy M.A., B.Sc.</td>
<td>P/M P.R. MacLeod</td>
<td>p4: 1, 5</td>
<td>F (same r-c motif) Identical first bar to Duke of Roxburgh and is mirrored down a tone in phrase b. Emphatic.</td>
<td>A/G mode</td>
</tr>
<tr>
<td>hAECE</td>
<td>Dr. E.G. MacKinnon</td>
<td>P/M Peter MacLeod</td>
<td>p4: 1, 5.</td>
<td>FtohA again appears on beat 1 feels quite strong opening to last part.</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>hAECE</td>
<td>Angus Campbell’s Farewell to Stirling</td>
<td>setting by P/M John MacDonald</td>
<td>p4: 5</td>
<td>A this emphasises the hA of the motif as part of the strong left beat.</td>
<td>A/G mode</td>
</tr>
<tr>
<td>hAECE</td>
<td>Bonnie Ann</td>
<td>traditional</td>
<td>p4: 6</td>
<td>D links into last phrase of part.</td>
<td>A/G mode</td>
</tr>
<tr>
<td>hAECE</td>
<td>Kantara to El. Arish</td>
<td>Willie Fergusson</td>
<td>p4: 1, 5.</td>
<td>CtoA also uses same motif from F, and is emphatic, this I think is because of the rhythm/contour of the motif. Again first beat.</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>hAECE</td>
<td>Clan MacRae Society, The.</td>
<td>Willie Fergusson</td>
<td>p4: 1, 5,</td>
<td>F occurs on beat 1, definitely associated with emphatic band playing.</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>hAECE</td>
<td>Braes of</td>
<td>Willie Lawrie</td>
<td>p4: 3</td>
<td>F</td>
<td>A pentatonic</td>
</tr>
</tbody>
</table>
Brecklet used on beat 1, emphatic function.

<table>
<thead>
<tr>
<th>Tune</th>
<th>Composer</th>
<th>location of A E C E motif and function</th>
<th>Leading to which notes?</th>
<th>Mode of tune</th>
</tr>
</thead>
<tbody>
<tr>
<td>hAECE Pap of Glencoe, The.</td>
<td>Willie Lawrie</td>
<td>p4: 1, 5, FtohA 2nd beat of bar 1, again used to emphasise the beat as part of the phrase a.</td>
<td>A/G mode</td>
<td></td>
</tr>
</tbody>
</table>

Table of occurrence of A E C E band motif within both solo canon and band tunes mentioned above (complete):

<table>
<thead>
<tr>
<th>Tune</th>
<th>Composer</th>
<th>location of A E C E motif and function</th>
<th>Leading to which notes?</th>
<th>Mode of tune</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clan MacRae Society, The.</td>
<td>W. Fergusson</td>
<td>p1: 1, 5, p3: 1, 5, p4: 5r (as part 3)</td>
<td>hA, A</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>Balmoral Highlanders, The.</td>
<td>Angus MacKay</td>
<td>p1: 1, 5, E, A</td>
<td>A/G mode</td>
<td></td>
</tr>
<tr>
<td>Donald Cameron</td>
<td>Hugh MacKay</td>
<td>p6: 1, 2, 6, hA, G, hG, also uses same motif from G.</td>
<td>A/G mode</td>
<td></td>
</tr>
<tr>
<td>Lonach Gathering, The.</td>
<td>W. Grant</td>
<td>p4: 1, 5, DtoF</td>
<td>A hexatonic</td>
<td></td>
</tr>
<tr>
<td>Southall</td>
<td>P/M John MacLellan</td>
<td>p4: 2, 6, F</td>
<td>A hexatonic</td>
<td></td>
</tr>
<tr>
<td>Stirlingshire Militia, The.</td>
<td>Hugh MacKay</td>
<td>p4: 3, F</td>
<td>A pentatonic</td>
<td></td>
</tr>
</tbody>
</table>
Motifs occurrences across a beat

In the following table of occurrence, the 3 2 1 motif is assumed to be the C B A motif apart from where stated in the 'Location' column. Normally, i.e. when the 3 2 1 rhythm-contour motif occurs within a whole beat, then it takes the respective rhythm: quaver (3), demi-semi-quaver (2) and dotted semi-quaver (1). Within occurrences across a beat the rhythm is not always the same. I have included all occurrences of C B A across a beat where they occur with the C and the A emphasised.

Occasionally the notes C B A or B A G occur in consecutive order in a tune without them constituting the 3 2 1 rhythm-contour motif. I have excluded these from this table in the following conditions:

When the notes 3 2 1 (i.e. C B A or B A G) occur only as part of the C B A C or C B A hA motifs:

- *The Braes of Brecklet*
- *John MacColl's March to Kilbowie Cottage* (also uses it as anacrusis-see table)
- *The Duke of Roxburgh's Farewell to Black Mount Forest*
- *The Rosshire Volunteers*
- *MacLean of Pennycross*
- *The Young MacGregor*

When C B A occurs with the A as the first note of the A B grip C D motif:

- *Jeannie Carruthers*

When they occur as part of the E C B A and/or D C B A motifs:

- *John MacDonald's Welcome to South Uist*
Finally, there are two other anomalies where the notes B A G or C B A occur in consecutive order but do not merit being considered as a distinct motif across the beat: In The Knightswood Ceilidh where the rhythm is very different and in Urquhart Castle, where they occur as an anacrusis with a markedly different rhythm and later as part of distinct figures that do not constitute 3 2 1 rhythm-contour motifs.

Table of Occurrence for 3 2 1 rhythm-contour motif across the beat

<table>
<thead>
<tr>
<th>Tune</th>
<th>Composer</th>
<th>3 2 1 also on-beat?</th>
<th>Location of 3 2 1 motif across beat</th>
<th>Leading to which notes?</th>
<th>Mode of tune</th>
</tr>
</thead>
<tbody>
<tr>
<td>74ths Highlanders Farewell to Edinburgh</td>
<td>Major W. MacKinnon</td>
<td>No</td>
<td>p3: 5 (C&amp;A semi-quavers)</td>
<td>CtoE</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>Argyllshire Gathering, The</td>
<td>John MacColl</td>
<td>Yes</td>
<td>p4: 4, 7. (BAG, but as part of DCBAG larger motif- questionable)</td>
<td>F, F.</td>
<td>A/G mode</td>
</tr>
</tbody>
</table>

---

1 Where bar numbers are shown with a hyphen between, then the motif has occurred across a bar line.
<table>
<thead>
<tr>
<th>Title</th>
<th>Performer</th>
<th>Appearance</th>
<th>Motif Details</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ronald Cheape of Tiroran</strong></td>
<td>Willie Lawrie</td>
<td>No</td>
<td>p4: 3 (BAG), 11 (BAG). BtoD, BtoD.</td>
<td>A minor mode</td>
</tr>
<tr>
<td><strong>Captain Carswell</strong></td>
<td>Donald MacLeod</td>
<td>Yes</td>
<td>p4: 4.</td>
<td>B/A mode</td>
</tr>
<tr>
<td><strong>Edinburgh City Police Pipe Band</strong></td>
<td>Roddy Campbell</td>
<td>No</td>
<td>p1: 3 (BAG)</td>
<td>G.</td>
</tr>
<tr>
<td><strong>Glenfinnan Highland Gathering, The.</strong></td>
<td>Ronald Lawrie</td>
<td>Yes</td>
<td>Always A (forms part of final phrase c)</td>
<td>A hexatonic</td>
</tr>
<tr>
<td><strong>Inveran</strong></td>
<td>G.S. MacLennan</td>
<td>No</td>
<td>p3: 8-1, 4-5.</td>
<td>C, C7/A</td>
</tr>
<tr>
<td><strong>John MacColl's March to Kilbowie Cottage</strong></td>
<td>Willie Lawrie</td>
<td>No</td>
<td>p3: 8-1, 4-5.</td>
<td>both C</td>
</tr>
<tr>
<td><strong>John MacFadyen of Melfort</strong></td>
<td>John MacColl</td>
<td>No</td>
<td>p1: 1-2, 5-6.</td>
<td>both hA</td>
</tr>
<tr>
<td><strong>John MacMillan of Barra</strong></td>
<td>Norman MacDonald</td>
<td>Yes (many)</td>
<td>p1: 7-8.</td>
<td>always A (forms part of final phrase c)</td>
</tr>
<tr>
<td><strong>Leaving Lunga</strong></td>
<td>J. Gordon</td>
<td>No</td>
<td>p1: 8-1, 4-5, 7-8.</td>
<td>both hA</td>
</tr>
<tr>
<td><strong>Lonach Gathering, The</strong></td>
<td>Willie Grant</td>
<td>Yes</td>
<td>p3: 1, 5</td>
<td>A, A.</td>
</tr>
<tr>
<td><strong>MacLean of Pennycross</strong></td>
<td>A. Fergusson</td>
<td>No</td>
<td>p3: 1-2, 5-6.</td>
<td>AtohA,</td>
</tr>
<tr>
<td><strong>Miss Elspeth Campbell</strong></td>
<td>T. Douglas</td>
<td>Yes</td>
<td>p1: 4 (All BAG)</td>
<td>E</td>
</tr>
<tr>
<td><strong>Pap of Glencoe, The.</strong></td>
<td>Willie Lawrie</td>
<td>No</td>
<td>p1: 4-5</td>
<td>A</td>
</tr>
<tr>
<td><strong>Renfrewshire Militia, The.</strong></td>
<td>John MacKay</td>
<td>Yes</td>
<td>p1: 4, 4, 4. In part 3, the motif is elaborated to 4-note motifs.</td>
<td>hA</td>
</tr>
<tr>
<td><strong>William MacDonald</strong></td>
<td>N. MacPherson</td>
<td>No</td>
<td>p1: 6, 2 (unusual use, in unusual tune)</td>
<td>BtoD,</td>
</tr>
</tbody>
</table>

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The second motif I searched for in the canon is the 1 2 3 1 rhythm-contour motif, found around A and G as the A B C A and G A B G motifs respectively.

If the rhythm-contour motif is realised around G then it is marked in the ‘Location’ column.

**Table of Occurrence for 1 2 3 1 rhythm-contour motif across the beat**

<table>
<thead>
<tr>
<th>Tune</th>
<th>Composer</th>
<th>Motif also on-beat?</th>
<th>Location of 1 2 3 1 motif across beat?</th>
<th>Leading to which notes?</th>
<th>Mode of tune</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donald MacLean’s Farewell to Oban</td>
<td>Archibald MacNeil</td>
<td>No</td>
<td>p3: 8-1, 4-5. anacrusis</td>
<td>C, C.</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>John MacMillan of Barra</td>
<td>Norman MacDonalld</td>
<td>Yes</td>
<td>p3: 8-1, 4-5. anacrusis</td>
<td>both CtoE</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>Leaving Lunga</td>
<td>J. Gordon</td>
<td>Yes</td>
<td>p1: 3 (after taorluath)</td>
<td>CtoE</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>Millbank Cottage</td>
<td>W.D. Dumbreck</td>
<td>Yes</td>
<td>p1: 1-2, 5-6. p2: 5r-6r (after taorluath).</td>
<td>all CtoE</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>P/M John Stewart</td>
<td>G.S. MacLennan</td>
<td>No</td>
<td>p4: 3 (after taorluath)</td>
<td>CtoE</td>
<td>A hexatonic</td>
</tr>
<tr>
<td>Taking of Beaumont Hamel, The.</td>
<td>P/M John MacLellan</td>
<td>No</td>
<td>p2: 1-2, 5-6</td>
<td>CtoE</td>
<td>A pentatonic</td>
</tr>
<tr>
<td>The Young MacGregor</td>
<td>John MacGregor Murray</td>
<td>No</td>
<td>p1: 3-4, p2: 3-4, p3: 3-4, p4: 3-4</td>
<td>all D</td>
<td>A hexatonic</td>
</tr>
</tbody>
</table>
Appendix 2

CD of musical examples
## Appendix 2: CD of musical examples

**Track listings**

### Hugh Kennedy:

<table>
<thead>
<tr>
<th>Track</th>
<th>Artist</th>
<th>Year</th>
<th>CD number &amp; Company</th>
<th>Title/Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Robert Wallace</td>
<td>1983</td>
<td>COMD1008 Temple Records</td>
<td>A Controversy of Pipers</td>
</tr>
<tr>
<td>3</td>
<td>Alasdair Gillies</td>
<td>1996</td>
<td>COMD2064 Temple Records</td>
<td>The Piping Centre 1996 Recital Series</td>
</tr>
<tr>
<td>5</td>
<td>Roddy MacLeod</td>
<td>2003</td>
<td>(field recording)</td>
<td>recorded by the author at the Highland Society of London Competition 2003.</td>
</tr>
</tbody>
</table>

### The Clan MacColl:

<table>
<thead>
<tr>
<th>Track</th>
<th>Artist</th>
<th>Year</th>
<th>CD number &amp; Company</th>
<th>Title/Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Angus MacColl</td>
<td>1996</td>
<td>LCOM5255 Lismor Records</td>
<td>The Clan MacColl</td>
</tr>
<tr>
<td>9</td>
<td>Barry Donaldson</td>
<td>1991</td>
<td>LCOM5201 Lismor Records</td>
<td>The Strathclyde Police Pipers</td>
</tr>
<tr>
<td>12</td>
<td>Roddy MacLeod</td>
<td>2003</td>
<td>(field recording)</td>
<td>recorded by the author at the Highland Society of London competition 2003.</td>
</tr>
<tr>
<td>14</td>
<td>Boghall &amp; Bathgate</td>
<td>1996</td>
<td>LCOM5181 Lismor Records</td>
<td>The Rubik Cube</td>
</tr>
</tbody>
</table>
Chapter 4: musical examples of phrasing and pointing and band playing.

15 Roddy MacLeod in discussion about the tune *Arthur Bignold of Lochrosque* and how to phrase it.

16 Chris Armstrong interview two, discussing pointing.

17 Chris Armstrong, discussion of pointing in *The Clan MacColl*.

18 Chris Armstrong in a discussion of band versus solo tunes, with musical examples.

19 Chris Armstrong further discussion of pointing including *Major Manson at Clachantrushel*.
Appendix 3

Glossary of Pipers' terms
Believable pitch: A pitch that is not too high or low in consensus terms; relative to other contemporary pipers. The concept is especially relevant to solo competition pipers.

Birl: A common ornament on low A played with the little finger, represented in various forms thus:

For discussion on the subject of birls see MacNeill (1977a, 1977b) that discusses the three methods of playing a birl and their notation. He suggests that the ‘blob’ as he calls it (example 1 above) with three gracenotes, is not a proper birl and should never be written as such. Seumas MacNeill felt that the low A preceding the first low G gracenote was an integral part of the birl movement and should always be played as such. However, many pipers play the birl straight to low G, including myself, and many others also disagree with MacNeill; nevertheless it is an interesting subject that exposes some of the shortcomings of bagpipe notation.

Bottom-hand (antonym; top-hand): When playing a tune it can be categorised according to how much of the tune is played on either hand, bottom-hand (usually right-hand) is the low end of the range from low G to D and top-hand is from E to high A.

Bright (timbre descriptor): Usually used to describe the timbre of the instrument of a chanter, denoting a richer, sound with more upper partials.

Ceòl mór: (lit. big music) Or Piobaireachd the theme and increasingly complex variations form of bagpipe music.

Ceòl beag: (lit. small music) Often referred to in English as ‘light music’, the area of repertoire that includes all tunes that are not Piobaireachd. Encompassing mainly marches, strathspeys, reels, jigs, hornpipes and slow airs.

Choke: A very short (usually less than a 1 second) interruption in the sound of the chanter, caused by a fall in pressure in the bag. This problem is mainly caused by either too strong a reed or when a player is blowing at the bottom limits of pressure required to keep the chanter reed sounding and momentarily misjudges the pressure (often in an attempt to keep the whole pipe in tune; effectively flattening the pitch of the chanter by under blowing it to maintain its consonance with the drones).
Double-tone: This is where a reed plays a different pitch at a lower pressure to the full playing pressure, but when the full pressure is applied to the bag, the reed comes in to its correct pitch and stays there.

Doubling: A particular form of ornament that involves three gracenotes that give the aural effect of doubling a melody note, e.g.: a C doubling

\[ \text{\includegraphics[width=0.2\textwidth]{image}} \]

Down-tunes: From the interview with Greg Wilson: tunes that involve more bottom-hand (i.e. down at the bottom of the scale) work.

Drones-going out: The drones of the pipes, drifting out of tune in a performance.

Flat: This is usually used to describe a pitch of a note/overall bagpipe which is lower relative to someone else's or collective pitch.

Flowing (tune descriptor): A tune whose contour moves in smooth curves, rather than jumpy movement.

Free: A physical property of a reed. A free reed is one that gives a good effort: volume ratio. I.e. a small amount of airflow produces a loud (and vibrant) sound.

Grip: A common bottom hand ornament played between two notes that gives a rippling effect, represented thus:

\[ \text{\includegraphics[width=0.2\textwidth]{image}} \]

Heavy: Primarily a term used to describe a tune with a high degree of ornamental density.

Hebridean style (of performance): I have often heard this phrase used by pipers (particularly knowledgeable ones) to label a style of playing that is associated with key figures from the Hebridean islands (for example Donald Morrison, Iain Morrison, Willie Morrison, Fred Morrison, Donald MacLeod). This style is rarely heard and in my opinion is founded upon extremely subtle manipulation of internal rhythms often highlighting offbeats and resulting in very suitable playing for dancing.

Keener: A descriptor employed by some pipers to denote a note that is sharp, and possibly referring to timbre also.

Kitchen-piping: a stylistic label used by pipers to describe fast, often highly ornamented or 'gimmicky' (non-traditional) tunes. (See section on competition for an aesthetic interpretation and origination of the term.)
**Left Foot beat:** The first beat of the bar in a 2/4 or 6/8 march; so called because that is the foot that touches the ground when marching.

**Lift:** Aesthetic of performance, where rhythm is manipulated resulting in a bouncier effect in a tune.

**Movements:** Same as ornamentation, e.g. doublings, birls, grace notes etc.

**Over-pointing:** This is a performance trait usually associated with novice players. It is used as a criticism, particularly by judges, to explain that a player has exaggerated the ratio of short to long notes in a tune, to the point that the long notes are too long, and are interfering with the flow of the tune.

**Phrasing:** This word is used by pipers to refer to the manipulation of note lengths to shape a tune into separate but interdependent phrases (see Chapter 4).

**Pointing:** This term refers to the ratio between short and long notes in performance. The more pointed a tune is; the longer the dotted notes are held and consequently the shorter the cut notes become (see Chapter 4). The antonym of this is *round*.

**Round [style of performance]:** When a piper is described as playing ‘round’ or ‘rounder’ in their treatment of a melody, it simply means that

**Senior competitions:** This phrase simply refers to the competitions for the small number of players worldwide who have won a Gold Medal or A-grade light music competitions at Oban or Inverness. Once a player has won one of these prizes they move up to a 'P' (Premier) grading which entitles them to compete in the Senior competitions at Oban and Inverness. The Senior competitions at Oban and Inverness are: The Senior Piobaireachd and The Clasp (Piobaireachd competitions respectively), and the Former Winner’s March Strathspey and Reel, and The Silver Star (Light Music respectively).

**Setting:** Usually of a tune, meaning the particular text of a particular composer/arranger. For example pipers will invoke a player/composer’s name when discussing a setting: ‘The Willie Ross setting of Caber Feidh’.

**Sociable pitch (Finlay MacDonald):** When a piper is playing with non-piper instrumentalists they must be in B flat as it is more acceptable and diatonic, otherwise other instrumentalists have to retune their instruments, specifically to the pipes.

**Space (tune descriptor):** This is a particularly interesting tune descriptor because it refers to the complex overall assessment of ‘fullness’ of a tune. A tune can either be full of notes (musically ‘thick’) or more sparse, not only in terms of the melody notes but also ornamentally. This concept encompasses a number of modal complex concepts such as melodic-rhythmic motifs, ornamental ‘thickness’ as well as simply how many notes are in a tune. (It would be possible if deemed necessary to actually quantify this concept in a statistical manner by some kind of numerical analysis)

**Tachum:** This is an extremely common movement in piping that is sometimes also labelled as the ‘Scotch snap’ by analysts. It is a descending
pair of notes usually from D, C or B, to A or G. As the name suggests, the initial short note is very short, resulting in an exaggerated short-long relationship. The D gracenote is always present. Two examples of tachums:

![Example of Tachums]

**Taorluath:** A common, complex ornament on the bottom hand that usually finishes on low A, represented thus:

![Example of Taorluath]

**Throw on D:** A very common ornament on the bottom hand that gives a rippling effect and finishes on the note D. There are two methods of playing the throw on D, both represented thus:

![Example of Throw on D]

There are however two commonly accepted methods of playing this movement; the heavy and the light. The light method corresponds to the example above, on paper the heavy version looks similar to a taorluath with the final E gracenote substituted for a C gracenote. In performance it sounds thicker and a deeper movement because of the grip element included. The most common method of playing the throw is the light version. There is in my mind an association between the heavy throw and West coast style of piping and the light throw with the East coast: however, this relationship falls down when considering the Balmoral school of piping (North East of Scotland) which emphasises the heavy throw in ceòl mór. For an explanation of how these relate to the terms heavy and light see Chapter 4, p.311.

**Tone:** Timbre or quality of sound.
Appendix 4

The Canon of Tunes

The following pages contain the complete canon of tunes, as published in their original format. Each tune is given its name in bold, then the composer and then the source; for details of these sources, see the bibliography.
The 71st Highlanders

Composer: Hugh MacKay  Source: (various)  (1954: vol. 1:154-5)
THE 71st HIGHLANDERS (cont.)

Composer: Hugh MacKay  Source: (various)  (1954: vol.1:154-5)
The 74th Highlanders Farewell to Edinburgh.  

Composer: W. MacKinnon  
Source: MacLeod, Donald. (1954: bk.2: 1)
PART III (cont.)

MARCHES - 2/4 Time

211. THE ABERCAIRNEY HIGHLANDERS

The Abercairney Highlanders (cont.)  Composer: Angus Mackay  Source: (various)  (1954: vol. 1:106-7)
Angus Campbell's Farewell to Stirling. March.

Setting by P. M. John Macdonald M.B.E.

Inverness.

Composer: John MacDonal (Inverness)  Source: MacLeod, Donald  (1954: bk.1: 2)
TUNE OF THE MONTH

Angus Morrison of Locheynort

MARCH by Donald Morrison, Aberdeen
The Argyllshire Gathering. March.

John MacColl.
Bonnie Ann

Composer: trad. arr. Willie Ross
Source: Ross, William
(1923: bk. 1:16-7)
The Braes of Brecklet

Composer: Willie Lawrie
Source: Ross, William. (1923: bk.4:23)
THE BRAES OF CASTLE GRANT

D. MACDONALD, Castle Grant 1863
3rd and 4th parts composed by
PIPE MAJOR G. S. MACLENNAN

The Braes of Castle Grant  Composer: D. MacDonald/ G.S. MacLennan  Source: (various)  (1954: vol.2 :28)
Brigadier General Ronald Cheape of Tiororan. March.

W. Ross.
MARCH

595 CAPTAIN CARSWELL (cont.)

596 THE CHOW MAN

Composed at Lo Wu Camp, South China during the tour of duty of 2nd Battalion Scots Guards 1927-1929

2nd TIME 2nd PART

Captain Carswell (cont.) Composer: Willie Lawrie Source: (various) (1954: vol. 2:30-1)
The Clan MacColl

Composer: John MacColl
Source: Ross, William.
(1923: bk. 2:7)
The Clan MacRae Society

Arr. Maj. A.M. Cairns

$\text{MM} = 76$

2 of 2
THE CONUNDRUM

MARCH

PIECE MAJOR P. R. MACLEOD

The Conundrum  Composer: P/M P. R. MacLeod  Source: (various)  (1954: vol. 2:32)  486
The Crags of Stirling. March.

By Hugh MacKay.

Composer: Hugh MacKay  Source: Ross, William.  (1923: bk.2:9)
Doctor E.G. MacKinnon.  

MARCH:  

Pipe-Major Peter R. MacLeod.

Doctor E. G. MacKinnon  Composer: P/M P. R. MacLeod  Source: Ramsay, Donald Shaw.  (1958:15)
Donald MacLean's Farewell to Oban  Composer: Archibald MacNeill  Source: (unknown)  (1998:23)
March

DONALD MACLELLAN OF ROTHESAY Pipe Major D. MacLeod

Donald MacLellan of Rothesay  Composer: Donald MacLeod  Source: MacLeod, D.  (1954: bk. 6:43)
The Duchess of Edinburgh.  March.

Dugald MacColl's farewell to France

March

The Duke of Roxburgh's Farewell to Black Mount Forest  March.

Composer: Angus MacKay  Source: MacLeod, D.  (1954: bk.2:8-9)
Edinburgh City Police Pipe Band.

March.

Rod. Campbell.

The Edinburgh City Police Pipe Band  Composer: Roddy Campbell  Source: Wilson, J. (1937; bk.1:3)
THE GLENFINNAN HIGHLAND GATHERING

March

Composer: Ronald Lawrie

Source: MacEadyen, J. (1966; bk. 1: 4)
The Highland Wedding  

Composer: trad. arr. William Ross  
Source: Ross, W.  
(1923: bk.1:22-3)
Hugh Kennedy. M. A., B.Sc.

MARCH.

by Pipe-Major Peter R. MacLeod.

Hugh Kennedy M.A., B.Sc.  Composer: P/M P.R. MacLeod  Source: Ramsay (1953:28)
INVERAN.

Geo. S. McLENNAN.

Inveran  Composer: George S. MacLennan  Source: MacLennan, George S.  (1929:37)
March - JOHN MACDONALD'S WELCOME TO SOUTH UIST  D. MacMillan

The Knightswood Ceilidh

Pipe Major Donald MacLeod

March

Composer: Donald MacLeod
Source: MacLeod, D. (1954: bk.4:11)
The Laird of Luss.

March.

A. M. Ross.
TULLOCH McCARRICK
also known as "LEAVING GLENURQUHART"

March

W. MacDonald

Leaving Glenurquhart (Tulloch McCarrick)  Composer: W. MacDonald  Source: Ross, W.  (1923: bk.5:10-1)
Leaving Glenurquhart (Tulloch McCarrick) (cont.)  
Composer: W. MacDonald  
Source: Ross, W. (1923: bk.5:10-1)
The Lona Ath Gathering: March.

Composer: W. Grant
Source: Ross, W. (1923: bk.2:3)
Major Manson's Farewell to Clachantrushal

Composer: D. MacLean

Source: (various) (1954: bk.2:46)
Millbank Cottage (cont.)  Composer: W.D. Dumbreck  Source: Ross, W. (1923: bk.4:18-9)
MISS ELSPETH CAMPBELL

March

T. Douglas

Mrs MacDonald of Dunach  Composer: Willie Lawrie  Source: (various)  (1954: bk.2:50)
PIPP MAJOR JOHN STEWART

Composed by: PIPE MAJOR G. S. MacLENNAN

MARCH

© Copyright ISA MUSIC 1998
Pipe Major Wm Maclean. March.

By Pipe Major Peter Macleod
THE RENFREWSHIRE MILITIA

March

Pipe Major J. MacKay

The Renfrewshire Militia
Composer: J. MacKay
Source: Ross, W. (1923: bk.5:4-5)
The Rossshire Volunteers

Composer: John Connon

Source: Ross, W. (1923: bk.3:18)
Royal Scottish Pipers Society

March

R. Campbell

Source: Ross, W. (1923: bk.4:2-3)
March \( \frac{1}{4} = 60 \)

SOUTH HALL

Pipe Major John McLellan D.C.M.

South Hall  Composer: John MacLellan  Source: MacFadyen, J.  (1966: bk.1:17)
Stornoway Highland Gathering.

March.

by The Competing Pipers.
MARCH

624 SUPPORT COMPANY, 1st BATTALION SCOTS GUARDS FAREWELL TO DIVIS FLATS
Composed in Northern Ireland 1975

PIPE SERGEANT J. J. RIDDELL
Scots Guards 1963 to date

625 THE TAKING OF BEAUMONT HAMEL
Composed during the Great War 1914–1918

PIPE MAJOR J. MACLELLAN, DCM

The Taking of Beaumont Hamel
Composer: John MacLellan
Source: (various) (1954: bk.2:60-1)
The Taking of Beaumont Hamel (cont.)

Composer: John MacLellan

Source: (various) (1954: bk.2:60-1)
The text is not legible or translatable to plain text.
Exercises to practise—throw on C, double F, double C.

Time to play—First attempt, 2 mins.; Regular practise 1½ mins.; On the pipe 1½ mins.

This is a great tune, and not too difficult. There is nothing in it that you can’t do, but as usual go slowly with it at first.

First measure

Play it over carefully, watching particularly the following points

Bars 1 and 5—Make good heavy throws on C
Exercises to practise—double high A, double F, and birl.

Times to play—as 1st and 2nd Parts.

Third measure

Again there are quite a number of tricky points to watch, such as

Bar 1—This start is practically a "tachum", so make a good clean C at the beginning, even although it is a short note. Make big, distinct D gracenotes.

Bar 2—In the second beat all the four gracenotes you make must be big ones.

Bar 3—Get every note clean in this bar.

Bars 7 and 8—As in first measure.
Appendix 5

Discussion Listings

& Harmonic data
Appendix 5: Discussion listings

The table below shows the list of discussions that took place. They all lasted between 50 minutes and 2 hours. There are field recordings of all the players listed here in competitions.

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Accurate textual readings from spectral analysis of discussion pipers when playing the note low A with all drones sounding:

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   low A = 476Hz  
   *Glenfiddich Piping Championships, Piobaireachd LCOM5267 Lismor Recordings*

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   *Glenfiddich Piping Championships, Piobaireachd LCOM5267 Lismor Recordings*

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3. Brian Donaldson 1990  
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4 Colin MacLellan 1990  
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Glenfiddich Piping Championship, Ceòl Mòr, Piobaireachd CDMON811 Klub Records Ltd.

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5 Gordon Walker 1990  
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Glenfiddich Piping Championship, Ceòl Beag, March, Strathspey and Reel  
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6 Roddy MacLeod 1989 low A = 476Hz

Piobaireachd LCOM9016 Lismor Recordings

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8 Chris Armstrong 2004 low A = 487Hz.

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</table>
Appendix 6

Miscellaneous
Having trouble with wet reeds, and unstable tone?

**THE ROSS CANISTER BAG** is the answer.

For more details on all of our products, please visit our website at:

**www.rossbagpipereeds.com**

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Victoria 3109
Australia
Phone/fax 61 3 98465380

'Tm a huge fan of the Ross Canister bag. It has allowed me to eliminate moisture problems that have plagued pipers for centuries. I now have a bagpipe that stays dry, steady and in tune during a long practice session or a crucial performance. As a bonus, the extended small size I play is one of the most comfortable bags I've ever had.'

Jim McGillivray
• ePTFE membrane/textile laminate from the same company that developed GORE-TEX® fabric
• Maintenance free - no seasoning necessary, naturally supple
• Pick up and play anytime
• Automatic moisture control - even pitch and tone
• Ease of assembly - no tying necessary
• Longer, more hygienic bag life
• Optional zip for easy access
INTRODUCING
KINNAIRD CARBON FIBRE DRONE REEDS
VIBRANT, RICH CANE SOUND

• Unique curved carbon fibre tongue gently rolls on and off the bed of the reed instead of striking it like a flat tongue.
• Specially designed carbon fibre material generates higher harmonics than plastic tongues.
• Manufacturing process ensures consistency between reed bodies and tongues.
• Tenors are identically matched.
• Reeds are simple to set-up:
  - O-ring bridle is used to set the strength of the reed and adjust the tuning position.
  - Adjustment screw allows for fine tuning.

These features result in a reed with a vibrant, rich sound similar to cane without all the hassles. They are incredibly steady and require very little maintenance and set up. They resist the effects of moisture allowing extended playing without interruption.

Humidity Controlled Reed Storage Cases:

NEW, Piper's Pal Reed Protector
Piper's Pal (holds 4 chanter reeds securely)
Piper's Pal for Retailers/Bands
   (holds 40 chanter reeds)
Piper's Pal for Drone Reeds

Design, Manufacturing, Sales, and Technical Support:
R.J. Kinnaird Bagpipes & Reeds
"Innovation, Quality, Service"

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e-mail: r.k@sasktel.net
www.kinnairdbagpipes.com
"My new David Naill bagpipe produces a richer, steadier sound than any bagpipe I've played and that includes some fine old sets"

CHRIS ARMSTRONG, winner of the 2003 Inverness Gold Medal, the 2001 'big' MSR at Oban and the 2003 Peter MacFarquhar Star at Skye.

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SOME MAJOR NAII\L CHANTER PRIZES WON IN 2001

SKYE
1st Silver Chanter • 1st Dunvegan Clasp • 1st Marches
1st Strathspey & Reel • 1st 6/8 Marches

OBAN
1st Open Piebairreachd (complete set of Naill bagpipes)
1st Gold Medal (complete set of Naill bagpipes)
1st Former Winners March Strathspey & Reel
1st A grade Marches (complete set of Naill bagpipes)
1st A grade Strathspey & Reel (complete set of Naill bagpipes)
1st Silver Medal • 1st B grade March • 1st Open Jig

INVERNESS
1st Gold Clasp • 1st Gold Medal
1st Former Winners March Strathspey & Reel
1st A grade March Strathspey & Reel
1st Hornpipe & Jig • 1st B grade Marches
1st B grade Strathspey & Reel