TRANSMISSION & THE INTERNET:

THE CONTEMPORARY RESPONSE OF A TRADITIONAL MUSICAL COMMUNITY

by

GRISELDA ISEULT SANDERSON

A thesis submitted to the University of Plymouth
In partial fulfilment for the degree of

DOCTOR OF PHILOSOPHY

Dartington College of Arts
Centre for Research and Postgraduate Studies

April 2003

THESIS CONTAINS
CD/DVD

COPYRIGHT STATEMENT

GRISELDA ISEULT SANDERSON

TRANSMISSION & THE INTERNET:
THE CONTEMPORARY RESPONSE OF A TRADITIONAL MUSICAL COMMUNITY

This thesis is a study of the performance, interpretation and transmission practices of traditional instrumental musicians in Scotland and Ireland. Extensive original research was undertaken over a period of four years including a survey of current transmission practices amongst traditional musicians from Britain and Ireland.

Both preservation and the study of change are vital elements in maintaining a flourishing oral culture. However, my focus is on *definition*. The study is an attempt to clarify the many contemporary, and often conflicting expressions of musical experience that constitute part of the oral tradition in Scotland and Ireland. By examining the work of the practitioners of this music it is possible to see that innovative and diverse approaches to arrangement, performance, education, transmission and reception are generating clearer ways of defining cultural values within the community.

The emergence of a clearer set of definitions will help practitioners establish a grammar from which interactions with other cultural and socio-economic models can be undertaken. This in turn may help reduce perceived threats and alleviate the fears of some members of the traditional music community and clarify for those from other musical, academic and economic cultural groups the importance of acknowledging differences between the values of disparate systems of exchange.

In terms of research methodology it is clear that, in the case of a subject area whose very existence depends on the conscious experience of individuals, we must accept the role that our specific and subjective contact with the world plays in the study of oral transmission. We must also reassess the value of oral traditions in their own right, away from textual analyses. Within an academic setting this approach must be validated as part of a system that is geared towards the understanding of all aspects of western cultural practices.

CONTENTS

ACKNOWLEDGEMENT

AUTHOR'S DECLARATION

At no time during the registration for the degree of Doctor of Philosophy has the author been registered for any other University award.

This study was financed with the aid of a part-time fee bursary from the Centre for Research and Postgraduate Studies at Dartington College of Arts.

Extensive original research was undertaken, which included a survey of traditional musical practices in Britain and Ireland.

Relevant conferences, festivals and other events were regularly attended at which both research and practical participation were undertaken. Several papers were prepared for publication.

Signed _____

Date _____ 20 . 10 . 04 _____

TRANSMISSION & THE INTERNET:
THE CONTEMPORARY RESPONSE OF A TRADITIONAL MUSICAL COMMUNITY

Introduction

This thesis is a study of current performance, interpretation and transmission practices of traditional instrumental musicians in Scotland and Ireland. I use the term transmission in its broadest sense and not solely as a pedagogical term (as in the passing on from a teacher to a learner), as transmission can occur without any formal teaching occurring at all. Transmission also means a thing that is transmitted, and it is this movement of a body of knowledge as a process that concerns me most in this context. There are many mediums that constitute the transmission of traditional musical material and the ways in which these are manifested vary from one individual to another and between communities in a diversity of contexts.

The research was undertaken over a period of four years. My fascination with how traditional music is transmitted goes back to my early experiences as a youth when I began participating in informal sessions, having absorbed a certain amount of material from various sources. Exposure came through school music sessions in my home county of Clackmannanshire in Central Scotland, competitive festivals, recordings, television and radio airplay. Most importantly material was picked up from live interaction with other musicians. In my case these were mainly other young fiddle players from all over Scotland who met up at musical events and courses, using every opportunity to swap tunes.

The aim of this research was to find answers to questions concerning the mechanics of transmission. Since my youth there has been a huge increase in the quantity and distribution of recorded material, and technological developments have provided new platforms for interaction. The status of traditional music has moved on to a new level in terms of defining broader aspects of Scottish and Irish culture. Alongside this there has been an increase in teaching programmes for traditional musicians.

My approach as a researcher was to utilise my experiences as a practitioner to follow lines of investigation that were opened up as a result of my interactions within the traditional

1

music community in general. Through my participation I have been able to use the same technologies, follow the same debates and observe the reaction to changes as they occur alongside the rest of the community. During the research period a vast number of ordinary players have contributed invaluable information both formally and informally on a number of levels and I have learned and passed on many tunes.

Because this is an oral system of transmission it is often difficult to track the processes involved. For this reason, during the research period, a survey of my own devising was conducted with a sample group of almost 200 participants in order to confirm certain practices in our current technological, economic and social climate. Above all, I have attempted to place this work where my methodology can be validated in relation to other studies of this nature.

The legacy of previous studies

In attempting this study I looked first to methodologies employed in the fields of ethnomusicology, anthropology and musicology.

From a musicological perspective, many of the traditional musics of the UK and Ireland have not received the same level of serious scholarly attention as western 'high art' forms. In an article written in the 1960s, Charles Seeger (the American philosopher of musicology) made the following statement.

> Historicomusicology has assumed that the single idiom with which it deals is the only one worth its serious attention. Other musics – and the folk and popular idioms of the European tradition – have been regarded variously as irrelevant, inferior, 'bad', barbarous, or not music at all.[1]

This is not to say that there is a lack of musicological data, but that it has generally emerged from other disciplines. One reason for this could be that a knowledge of traditional music was taken for granted in the musical societies of Ireland and Scotland over the past centuries. David Johnson makes a statement that could just as easily apply to many of the traditional and classical players and scholars of today:

---

[1] Seeger, Charles: 'Preface to the Critique of Music' in *Ethnomusicology: History, Definitions and Scope* ed. Kay Kaufman Shelemay (New York & London; Garland Publishing Inc., 1992) p104 (Originally published in *Inter-American Music Bulletin 49*, 1965)

2

> The folk tradition in eighteenth-century Scotland was . . . available to all classes of society; the reason why it was not documented earlier than 1780 must therefore have been, not that educated people were not interested in it, but that they knew it all already.[2]

Nevertheless, some useful methodologies evolved from the fields of anthropology and ethnology. The American scholars of the late C19th and early C20th, such as Frances Densmore (1867-1957) of the Smithsonian Institute[3] and anthropologist George Herzog of Columbia University (writing in the 1940s), were concerned with the potential loss of native cultural practices.[4] From the late C19th onwards, ethnomusicological studies constituting field notes and recordings of traditional material were seen as playing an important role in preserving what were perceived by scholars as the long-standing but fragile traditions of a dying culture.

> With the importance of the collection of music and folklore recordings came the recognition of the need to preserve them. Music and other oral arts exist in a state of flux, and traditions and performance are constantly changing. Early anthropologists and folklorists were concerned that many musical and performing traditions were becoming 'extinct' and regarded recording collections as the sole manifestations of such material[5].

Preservation is still an important part of ethnomusicology, as evidenced by a short publication aimed at guiding new researchers in the field published in 1994 by The Society for Ethnomusicology. It states 'the purpose of recording field data is to study and preserve musical traditions'.[6]

As already implied, the Scottish scholar David Johnson denies a perceptible division between the two parallel cultures of traditional and classical music in C18th Scotland that existed at that time. He suggests that contrary to the belief that there must have been some geographical or class barrier that restricted their influence on one another the two musics were able to exist simultaneously because they 'fulfilled different emotional needs'.[7] These

[2] Johnson, David: *Music & Society in Lowland Scotland in the Eighteenth Century* (Edinburgh, Oxford University Press, 1972) p19
[3] Myers, Helen; *Ethnomusicology: An Introduction* in *Ethnomusicology: Historical and Regional Studies* (London; The MacMillan Press, 1993) p5
[4] Herzog, George: 'Study of Native Music in America' in *Ethnomusicology: History, Definitions and Scope* ed. Kay Kaufman Shelemay (New York & London; Garland Publishing Inc., 1992) pp17-23
[5] Chauduri, Shubha: 'Preservation of the World's Music' in *Ethnomusicology: An Introduction*; ed. Helen Myers (London; MacMillan, 1992) p365
[6] Bucknum, Mary Russell, Post, Jennifer C; Sercombe, Laurel: *A Manual for Documentation, Fieldwork & Preservation for Ethnomusicologists* (US; The Society for Ethnomusicologists Inc, 1994) p7
[7] Johnson, David: *Music & Society in Lowland Scotland in the Eighteenth Century* (Edinburgh, Oxford University Press, 1972) p15

two traditions – the traditional and the classical - in both Scotland and Ireland neither dominated nor came to absorb one another, and were participated in by members of all classes of society.

In some ethnomusicological research signs of recent innovation were ignored as music that appeared to be more ancient in origin was given preference. Charles Seeger made the following observation in the 1960s.

> Between two items, one of which showed changing features, the apparently unchanging has almost always been considered the proper ethnomusicological datum. Only too often the former has not even been considered worth recording.[8]

Evidence of acculturation did not conform to anthropological ideas of an ancient music that evolved in parallel with, but separate from western art music. These ideas of social evolution and the 'origins' of music emerged from the German ethnologists of the late C19th century when anthropological and ethnological studies were devoted to gathering comparative information on the social, political and cultural practices of non-western civilizations living in what were considered at the time to be 'primitive' societies.

> To anthropology was left almost the entire study of so-called "primitive" men, and the anthropologist was forced to assume responsibility for all aspects of the cultures of these people – the technologic and economic, the social and political, the religious, the artistic, and the linguistic. Early ethnomusicologists, recognising as well the need for broader comparative materials, assumed responsibility for studying the music of all the hitherto unknown areas of the world, and thus an emphasis came to be placed upon the study of music in the non-Western world.[9]

Certain methodologies became standard, but were unsuitable for the study of traditional Scottish and Irish music, situated as they were within a framework that accepted dual musical cultures.

By the middle of the C20th the discipline of ethnomusicology had been formally established, the term being coined in 1950 by the Dutch Scholar Jaap Kunst. By the late 1950s Nettl stated that the aims of historical research could be classified within the two primary areas of *origin* and *change*.[10] It was accepted that traditions constantly change

---

[8] Seeger, Charles: 'Preface to the Critique of Music' in *Ethnomusicology: History, Definitions and Scope* ed. Kay Kaufman Shelemay p104
[9] Merriam, Alan P: *The Anthropology of Music* (USA, Northwestern University Press, 1964) p4
[10] Nettl, Bruno: 'Historical Aspects of Ethnomusicology' in *Ethnomusicology: History, Definitions and Scope* ed. Kay Kaufman Shelemay (New York & London; Garland Publishing Inc., 1992) pp40-54

BLANK PAGE
IN
ORIGINAL

through acculturation, and in the 1960s and early 1970s the major journals on ethnomusicology show that over 50% of ethnomusicological subject matter was concerned with the music as a changing phenomenon.[11]

Around the same time that the term *ethnomusicology* was coined, a strong scholarly interest in representing the musical traditions of Scotland and Ireland began to develop from within those nations. In 1951 Francis Collinson became a founder of Edinburgh University's School of Scottish Studies, establishing what has since become a cornerstone in the collecting and archiving of traditional folklore and music. As Margaret Fay Shaw states

> And at long last Scottish academic authorities overcame their prejudices and gave belated recognition to the study of Gaelic and Scots folksong when Mr Francis Collinson was given a research fellowship for this purpose in 1951.[12]

Breandán Breathnach contributed greatly from the 1960s onwards to increase the body of knowledge available to scholars through his work for the Irish Department of Education. In more recent decades the works of scholars such as Micheál Ó Súilleabháin, David Johnson and Peter Cooke, to name but a few, have ensured a place for the study of traditional musics in the academic environment within Scotland and Ireland. Since the establishment of postgraduate facilities for the study of traditional musics at the Irish World Music Centre (University of Limerick), the RSAMD in Glasgow, Aberdeen University, Queen's University in Belfast, and University College, Cork, a new wave of insider researchers is beginning to emerge.

Although in Scotland, as Johnson states, 'selfconscious wholesale documentation of the folk tradition did not begin until the 1780s' there is a wealth of information available.[13] Therefore I must acknowledge the huge bulk of research that was and continues to be carried out by numerous professional and amateur musicologists, traditional music experts, enthusisasts and collectors from within both Scotland and Ireland who have contributed enormously over the centuries to the body of knowledge and oral materials (including radio programmes) relating to the traditional dance musics of Scotland and Ireland. The most important thing to point out here is that most were, or are enthusiastic players themselves and as such are particularly important as insider researchers. They are too

---

[11] Nettl, Bruno: *Folk and Traditional Music of the Western Continents* (Prentice Hall Inc., 1973) p381

[12] Shaw, Margaret Fay: *Folksongs & Folklore of South Uist* (London; Routledge & Kegan Paul Ltd., 1955) p76

[13] Johnson, David: *Music & Society in Lowland Scotland in the Eighteenth Century* (Edinburgh, Oxford University Press, 1972) p16

numerous to acknowledge here, but one example is Seamus Ennis, the Irish uilleann piper who from the 1940s worked for the Irish Folklore Commission collecting tunes from the Aran Islands and Connemara to Donegal and the Hebrides. During this period he also presented the radio programme *As I Roved Out* for the BBC. We owe a great debt to these characters, from Police Chief Ó Neill, James Hunter, Keith Norman MacDonald, Seán Ó Riada and Captain Fraser to the internet archivists of today such as Jack Campin, John Chambers and Henrik Nordberg. Their understanding of the music that links the interests of all participants within the various traditional musical communities comes through their experience of learning and playing the repertoire in participation with others. It is important to recognise the importance of this connection with fellow practitioners as an insider researcher working within the field of orally transmitted music.

As practitioners, insider researchers naturally have an interest in both preservation and the study of change, which are vital elements in maintaining a flourishing oral culture. However, in this study of contemporary practices I prefer to focus on *definition*. The study is an attempt to clarify the many contemporary, and often conflicting expressions of musical experience that constitute part of the oral tradition in Scotland and Ireland, and of which we are the curators. I believe that by examining the work of the practitioners of this music it is possible to see that innovative and diverse approaches to arrangement, performance, education and transmission are generating clearer ways of defining cultural values within the community.

The emergence of a clearer set of definitions will help practitioners establish a grammar from which interactions with other cultural and socio-economic models can be undertaken. This in turn may help reduce perceived threats and alleviate the fears of some members of the traditional music community that have arisen as a result of new practices, such as transmission by online interaction. It may also clarify for those from other musical, academic and economic cultural groups the importance of acknowledging differences between the values of disparate systems of exchange.

In the first chapter I have looked at models that may be useful when embarking on a study of this nature and have attempted to map out a methodology suited to this particular area of research. The second chapter is an investigation of performance practices amongst traditional players today. This examines the rhythmic, harmonic and melodic structures of the music. I also focus on methods of analysis and arrangement.

Chapter three is an examination of the nature of traditional music transmission and reception in a range of manifestations. It introduces the concept of online transmission and the new technological developments that have been brought to traditional practices as a result. The next chapter contains the results of the survey conducted during the period of research and evaluates the possible benefits to the community, as well as the reservations of practitioners.

Chapter five is an analysis of the development of online interaction and the response it has received, with particular reference to its place within the global economy and possible effects on a common resource. Areas of potential threat to a gift-sharing exchange system are identified. In this chapter I also examine areas where musical practices are changing to suit the new online environment.

Finally, I have attempted to list a set of practices by which traditional music transmission can be better defined. In this last chapter I have also set out a model that may aid future studies in this research area and outlined the relationship between the live and online interaction.

1 Defining A Methodology: Working with an Oral Tradition in an Academic Environment

In approaching this work it was necessary to choose or develop a methodology that would lend equal significance to both the subjects of the research within an oral tradition and the scholarly nature of the study. The problem encountered has been articulated recently by several insider researchers and is to do with the subjectivity that is inherent when making academic studies within one's own field of musical experience. It has been suggested that insider researchers generally take a more pragmatic approach than that of ethnomusicologists working from an etic standpoint.

Recently several useful studies have been made by insider researchers in a similar field to this one, where problems related to subjectivity have arisen.[14] All these studies have in common the fact that the researchers' contact with the musical culture within which their research is based is also one in which they grew up. Their disciplines may differ (authors describe themselves variously as musicologists, social anthropologists or ethnomusicologists) but for the purposes of my study their work is important because of their status as insider researchers.

Notions of bi-musicality (which are discussed later in this chapter), intervention, non-objectivism and the performative representation of findings have all been major issues for insider researchers in recent years. Identifying a voice in which to represent one's findings is particularly difficult. Often musical terminologies are applied in different ways, and having grown up accepting certain terms as the norm it is often hard to know when and in how much detail to explain them in an academic context. This has become a major difficulty for many insider researchers who want to place their studies within an academic frame yet make it relevant and accessible to the community of informants within which they are working. In the context of a study like this the cultural norms of the academic environment inevitably come into contact with those of the oral tradition and must be aligned in order to comfortably represent the findings to both sides (the academic and the musical community), each with its own set of cultural definitions. The identification and

---

[14] These include studies by Katherine Campbell on learning the fiddle in Scotland (university of Edinburgh), Breda McKinney on the singing tradition of Inishowen, County Donegal (University College, Cork), Simon McKerrell (RSAMD, Glasgow) on contemporary piobaireachd practices, Dr. Jan Petter Blom (Professor of Social Anthropology in Bergen) on the relationship between traditional dance & its associated music, and others cited in this thesis.

acknowledgement of these problems faced by insider researchers has led to the British Forum for Ethnomusicology including it as one of the two main themes for their annual conference to be held in Aberdeen in April 2004 (*Ethnomusicology at Home*).[15] A realisation that more researchers are using their home contexts as a basis for fieldwork has led to an urgent need to redefine methodologies in this area.

Often differences in cultural values (between the hegemonic culture of which the field of ethnomusicology is a part and the sub-culture of the insider researcher and traditional musician) are ambiguous or obscured. However, I shall attempt in the following paragraphs to identify areas where there is a question over the shared cultural values of ethnomusicology as a discipline or field, and those of the Scottish and Irish insider researchers.

Models for change in musical communities

In 1964 Merriam, with his background in anthropology, expressed a need for the formulation of a theory of change for ethnomusicologists, saying

> The study of the dynamics of music change is among the most potentially rewarding activities in ethnomusicology. Change in music is barely understood, either as concerns music sound as a thing in itself or the conceptual behavioural activities which underlie that sound.[16]

Merriam propounded a number of possible processes this theory could encompass, which I have made an attempt to paraphrase here. Firstly, there is the fact that the degree to which change is possible depends largely on the concepts about music held within that culture. Secondly, within a given musical system different kinds of music are more or less susceptible to change. Thirdly he suggests that change occurs through variation in human behaviour as individuals deviate from the norm. Another process of change can occur where there is a tendency within a musical culture to unify diverse musical materials stylistically. Furthermore, within some musical forms innovation is accepted as inevitable through a natural struggle between modernists and traditionalists. Finally, change occurs

---

[15] The keynote speaker will be the American ethnomusicologist Professor Jeff Todd Titon of Brown University.
[16] Merriam, Alan: *The Anthropology of Music* (USA; Northwestern University Press, 1964) p319

9

through acculturation or syncretism – the combination or attempt to combine the characteristic practices of differing systems of music.[17]

Nettl pointed out that throughout the 1970s and 1980s more than 50% of ethnomusicological research subjects were concerned with 'music as a changing phenomenon.'[18] However, he also suggested it was this latter process, that of acculturation, that has come to dominate ethnomusicological studies of change, perhaps due to the etic standpoint of the majority of researchers. This is partly because contact with outside cultures can be easily identified and documented, whereas, as Nettl states, 'changes coming from internal stimuli are likely to be slower and result from a large number of individual actions difficult to document for one from outside the culture'.[19] Today's insider researcher can take heart from this. The remaining processes of change suggested by Merriam would pose no particular difficulties for insider researchers with lived experience of the music over a substantial period of time (often since childhood), leaving them ideally placed to make substantial contributions to existing bodies of knowledge.

The anthropological perspective on change is also useful for an insider researcher concerned with issues of identity. The ways in which contact with other cultures produces change has fascinated the social anthropologist Malcolm Chapman.[20] His model describes different processes by which cultures relate to each other, the first of which is *the elaboration of the opposition*. This has the function of determining a subculture within a hegemonic one, or of distinguishing neighbouring cultures by playing up differences that have a symbolic opposition to each other. The musical example Chapman gives of this is 'Scots play the pipes. We don't.'[21] This idea need not apply solely to ethnic groups, but between sub-cultures and the dominant culture. For instance, ideas such as the use of the highland bagpipe in a piece of classical music serve to highlight the differences between traditional (folk) music and western classical music. The two musical systems are not brought any closer together in the process.

The second process Chapman describes is the movement of fashions from the centre to the periphery. He suggests that certain instruments or musical styles can begin at a cultural

---

[17] Merriam, Alan: *The Anthropology of Music* pp310-319
[18] Nettl, Bruno: 'Ethical Concerns and New Directions: Recent Directions in Ethnomusicology' in *Ethnomusicology: An Introduction* ed. Helen Myers (UK; The MacMillan Press Ltd, 1992) p381
[19] Ibid. p381
[20] Chapman, Malcolm: 'Thoughts on Celtic Music in Ethnicity, Identity & Music; The Musical Construction of Place' in *Ethnicity, Identity & Music*, ed. Martin Stokes (USA; Berg, 1994) p32
[21] Ibid. p36

10

centre and then move outwards to be taken up at a later date by those on the fringes of a hegemonic society and made their own. Take the fiddle, for example. There is evidence that a two-stringed bowed fiddle (the gué) existed for a significant period in the Shetland Isles before the modern four-stringed violin found its way there from mainland Europe. The extra range this new design offered meant that it was readily adopted in preference to the older instrument.

The third of Chapman's processes takes place as 'a systematic function of the meeting of incongruent category systems'.[22] The effect of this process is to cause the culture that is doing the perceiving to build up an erroneous picture of other cultures due to an inability to understand their systems. For example, certain characteristics of some traditional musics that make it more desirable to commercial audiences are played up, perpetuating myths that reinforce the 'precious' and 'exotic' qualities that supposedly set traditional music apart from other genres. One need only look at a few adjectives and expressions used to describe a selection of musics from Wales, Ireland and Norway to Burkina Faso in reviews and programme notes written for British (predominantly white middle-class) audiences within the last five years to see this process in action: *naked passion, primal, ancient, primitive, uncharted, home-grown, tropical, magical, shamanistic,* and *wild.*[23]

Insider researchers studying traditional music will sometimes have to approach the issues presented by Chapman from their position as members of a musical subculture within a hegemonic society. At the same time, as members of the academic community, an overview of the relationship between the two different cultures must be taken into consideration. It is this dual identity that sets insider researchers apart from others, increasing methodological problems.

The role of text and notation

With reference to text-based analyses, if one believes that music and speech are 'incompatible modes of communication',[24] (an idea that was propounded by Charles Seeger in the 1970s) many insider researchers will find themselves in a very difficult position when attempting to present their findings. Ethnomusicological research in the

---

[22] Chapman, Malcolm: 'Thoughts on Celtic Music in Ethnicity, Identity & Music; The Musical Construction of Place' in *Ethnicity, Identity & Music*; pp38,39

[23] All these examples were found in issues of fRoots Magazine and the WOMAD programmes.

[24] Myers, Helen: 'Ethnomusicology: Introduction' in *Ethnomusicology: Historical and Regional Studies* ed. Helen Myers (UK; The MacMillan Press Ltd, 1992) p7

early part of the C20th was based on researchers' own western pedagogical experiences and relied heavily on text-based materials. The transcription of recordings of the music has long been a major requirement of ethnomusicological study. At a further 'laboratory' stage of the process the musical transcriptions would be analysed, then interpreted. The resulting text that presented the findings would generally have been intended for scholars, not the traditional musicians who were the subject of the research. For early participant observers such as the American Margaret Fay Shaw who began making studies of traditional music in the Hebrides in the 1920s and continued throughout the C20th, it seemed important to use text as explanation (as well as transcription), but she also admitted that it was an unsuitable means of representing the music.[25] However, at the time it appeared to be the only way of passing on knowledge to a wider academic community.

> This method provided objectively quantifiable and analysable data that furnished a solid base for ethnomusicology's claim to validity as a scientific discipline.[26]

Notating the music of the subjects of research continued to be an important feature of ethnomusicology. Towards the middle of the C20th Benjamin Ives Gilman and Charles Seeger made the distinction between prescriptive and descriptive notations for the purposes of defining a theory for transcription.[27]

A *prescriptive* notation is one that represents how the music should sound, as in most western classical music. The function of a *descriptive* transcription in ethnomusicology is to describe as accurately as possible a specific performance of a piece of music. Examples of this can be seen in the many transcriptions made by Peter Cooke during his researches on Shetland fiddle music.[28] However, as an insider researcher I encountered a problem with this terminology as the term *transcription*, when used amongst practitioners of traditional music, is most commonly used to describe a tune notated from a live performance or a recording for the purposes of learning it oneself from memory. This kind of transcription generally does not share the same features as the ethnomusicological definition of the term. The traditional music practitioner's transcription may contain no indication of tempo, ornamentation or details of tuning and timing fluctuations as performed in the original. Neither does it explain how to perform it in a live context or

---

[25] Shaw, Margaret Fay: *Folksongs & Folklore of South Uist* (London; Routledge & Kegan Paul Ltd.,1955) p77

[26] Ellingson, Ter: 'Transcription' in *Ethnomusicology: An Introduction* ed. Helen Myers (UK; The MacMillan Press Ltd, 1992) p110

[27] Ibid. p110

[28] Cooke, Peter: *The Fiddle Tradition of The Shetland Isles* (Oxford U.P., 1986)

how it should be arranged with other material. This is transcription in its broadest sense, one that simply notes the basic melodic and rhythmic structure of a tune without the need to acknowledge a specific performance. Alternatively, a traditional musician's transcription may contain a great deal of detail for a specific version of a tune as played by a particular performer, especially in relation to ornamentation and variation in the parts.

The problem for insider researchers is that most of the notated traditional music of Scotland and Ireland fits into neither category of prescriptive or descriptive notation. I am talking here of the substantial bulk of notated Scottish and Irish tunes as contained in the numerous tune books that exist, like Breandán Breathnach's *Ceol Rince na hÉireann* series or Ian Hardie's *Nineties Collection* of contemporary Scottish tunes. My notated version of *The Duke of Argyll's Strathspey* on page 40 is a good example of a typically notated tune. Like the traditional musician's 'transcription' mentioned above, this notation simply represents a prototype of the tune and does not prescribe its exact replication in performance terms. This takes account of the fact that each player may have reasons to interpret the tune differently. For instance, when learning a tune from a book an Irish flute player will generally play a tune in the key in which it is written. However in performance this may necessitate transposing one section up or down an octave in order to make it fit on the instrument. This is a common practice that is universally accepted.

Ter Ellingson suggests that ethnomusicologists are now moving towards the use of a third category of notation that is neither descriptive nor prescriptive 'but rather cognitive or conceptual, as it seeks to portray musical sound as an embodiment of musical concepts held by members of a culture'.[29] As insider researchers, we certainly need clarification in relation to the definition of types of notation in the traditional music of Scotland and Ireland and perhaps both the 'transcriptions' carried out by many traditional musicians, as mentioned above, and the notated versions of tunes in tune books fall into this category of 'cognitive' notation. They have in common the fact that they represent the basic melody and rhythm. Additional details of performance direction (such as ornamentation) are optional. In this type of notation some parameters of the music are variable, others are not. Some tunes are instrument-specific, but many of them can be played on a variety of instruments, from guitar or bouzouki to fiddle, wooden flute or bagpipes. It is assumed that ornamentation and details of style can be added with the performer's individual interpretation. Knowing which parameters are and which are not variable is only possible

---

[29] Ellingson, Ter: 'Transcription' in *Ethnomusicology: An Introduction* p110

with a knowledge of the musical concepts that are accepted by members of the specific cultural group that makes up the Scottish and Irish traditional music community. There is more on this topic at the end of chapter two.

By implication, tunes notated in this 'cognitive' way are difficult for an outsider to interpret, but pose no problem to an insider researcher. Their existing knowledge can help make interpretations, but at the same time it is not always easy to validate the level of acquired knowledge in an academic setting. Knowledge gained solely through lived experience is by its very nature difficult to quantify.

It is also most important to remember that the value of notated music does not have the same significance in traditional music amongst practitioners as it does in the field of western art music. Much of the repertoire at any one time is held in the collective memory of many individual players. Musical literacy is not a pre-requisite for participation. Although there is a large body of notated source material, the memorised repertories that constitute a common resource are considered to be at least of equal value. In other words, a certain amount of knowledge is visible (in text and notations) but a large proportion of it is invisible to the outsider. Insider researchers can only represent internalised knowledge in their studies in a subjective way as each individual's repertoire is built up through a series of unique learning experiences.

Participant observation, bi-musicality and lived experience

The relationship between insider researchers and their informants cannot be properly understood without a brief comparison between their position and those of *participant observers*. The subject of bi-musicality must also be addressed.

Musicologists have never had to justify their presence in the musical world of the western classical tradition because scholarly interpretation and analysis have always been a part of that musical culture. Ethnomusicologists, on the other hand, have tended historically to choose as the subjects of their research musics outside their field of cultural experience and therefore have had to deal with informants as members of a culturally unfamiliar group.

One technique of ethnomusicologists that is an attempt to avoid accusations of cultural misrepresentation is to participate in the cultural practices of a musical community

themselves. The idea is that in doing so researchers can both increase access to and validate their data through better interpretation and generally enhance their insight into the musical cultures within which their research is based. This practice of *participant observation* presents its own set of difficulties. Occasionally it can be difficult for scholars to become a part of the musical community they are studying through cultural prejudice. A lack of shared cultural values may also mean that the researcher does not immediately gain a better understanding of the music. The cultural contrast between his or her previously learned musical values and the musical values that are the focus of the study may prejudice their performance and transmission methods, interpretation and analysis. Trying to address these problems can take up a significant part of a researchers' time, not to mention any language difficulties that may arise.

For the insider researcher, who is by default a participant observer, a huge amount of research time can be saved because issues of acceptance, prejudice, unfamiliar cultural values and language do not present so much of a problem. In many ways their relationship with their informants is more like that between musicologists and their informants working within the cultural climate of western art music. For this reason we cannot equate insider research with the ethnomusicological term of participant observer.

In the 1960s, in contrast to earlier models for ethnomusicological study the idea of using one's musical training as a tool came into being, as Timothy Cooley explains.

> Mantle Hood advocated a very different fieldwork method that reflected his training as a musician. Without denying the importance of studying the music in its cultural context, he shifted the focus back on the music sound object with his call for 'bi-musicality.[30]

Bi-musicality involves learning the music of another culture in order to better understand some of the cultural and musical practices. One criticism of this practice is that it could be at the expense of observation in the original context. It is implied in the statement above that in ethnomusicology it has been accepted that the music being studied can be practised away from its source.

---

[30] Cooley, Timothy J: 'Casting Shadows in the Field: An Introduction' in *Shadows in the Field: New Perspectives for Fieldwork in Ethnomusicology*, eds. G. Barz & T Cooley (Oxford University Press, 1997) p11

Some clarification of terminology is required when relating the ethnomusicological term 'bi-musical' with the state of many insider researchers. It has been suggested in ethnomusicology that being bi-musical is analogous with being bi-lingual.[31] However, the practice of learning and playing traditional music away from its original cultural context as described above could be equated with a group of English friends who have learned Spanish and been to Spain a few times meeting up in their home country to converse in Spanish. The linguistic definition of the term bi-lingual would be more along the lines of a person with one Spanish and one English parent, say, who can converse fluently in Spanish with native Spanish speakers and in English with native English speakers. The term bi-musicality for traditional Scottish and Irish musicians implies a similar state where a musician has grown up absorbing the musics of two different cultures from their immediate environment.

A distinction must be made between the type of musical knowledge gained through exposure from an early age within one's immediate environment and knowledge gained as a result of learning an instrument for research purposes. As someone who grew up with both western classical and Scottish traditional music around me I know that there is a vast difference between the kind of knowledge gained through my absorption of traditional and classical music and the Indian classical music I sought to study at a later date through learning the tablas.

The removal of musical material from its original cultural setting and its transference to a new one alters the balance between the state of the ethnomusicologist as an observer and as a practitioner. In ethnomusicology, musical practices transferred in this way may be taught by native players, but also often by non-native teachers. Amongst the traditional musicians of Scotland and Ireland there are many examples of scholarly musicians who have learned both classical and traditional music from an early age who can switch fluently from one to the other depending on the context. David Johnson, when speaking about the state of musical life in C18th Scotland asserts that 'every single professional violinist in eighteenth-century Scotland, apart from some of the foreign visitors, had to earn his living part of the time by playing folk-fiddle music.'[32] However, it would be unusual and extremely problematic if musicians were to transfer one genre of music to the setting of the other.

---

[31] Myers, Helen: *Ethnomusicology: An Introduction* (UK; The MacMillan Press, 1992) p9
[32] Johnson, David: *Music & Society in Lowland Scotland in the Eighteenth Century* (Edinburgh, Oxford University Press, 1972) pp18,19

In other words, the term bi-musicality as used in ethnomusicology does not really go far enough in explaining exactly what being 'bi-musical' means in the case of an insider researcher. Of course not all insider researchers will be bi-musical, some never having had any other musical training except the traditional music they grew up with.

Traditional music is all about its practice, the transmission of the material being a major part of the practical experience. In practice, the value of holding a collective repertoire in a collective memory that is not reliant on text-based representations is fundamental. In the oral tradition one need not have something explained or be literate in order to know, one can come to understand through experience. That is what makes the oral tradition a non text-based musical system and is the reason why there is a case here for validating the representation and analysis of phenomena through musical experience as opposed to text. Although on a practical level no two individuals' lived experience can be the same, the subjective value of experiencing traditional music must be validated.

This idea is in the process of being promoted in mainstream ethnomusicological thinking as more insider researchers begin to find their feet within academia. For ethnomusicologists, especially insider researchers struggling with concepts such as bi-musicality and participant observation, one useful model that has emerged in recent times is that of American ethnomusicologist Jeff Todd Titon. He acknowledges the fear that for many years ethnomusicologists have had to live with the fact that they cast 'shadows in the field'.[33] Titon suggests a different approach for researchers, particularly those working 'at home', and that is to ground musical *knowing* in musical *being*. [34] His theory is that by actually becoming a musician within the community, separate from one's state as researcher, one enters a different state of being. One can then use one's own lived experiences as a basis for research; become your own informant, in other words.

Grounding one's work in *musical being* is easier for the insider researcher. Titon himself has been in the position of researcher/musician with lived experience of the musical cultures he was studying. He suggests a situation where a researcher in the field goes through a process of phenomenological reduction. When participating in a live musical experience, a different conscious state takes over. Titon describes it as that of 'musical

[33] G. Barz & T Cooley eds: *Shadows in the Field: New Perspectives for Fieldwork in Ethnomusicology* (Oxford University Press, 1997)
[34] Titon, Jeff Todd: 'Knowing Fieldwork' p94

being'. After the experience, the musician can revert to the role of researcher in order to analyse and interpret the musical experience by drawing on their own musical knowledge.

A Way Forward

It is clear that if one wishes to represent one's findings to both an academic and traditional music audience, the methods of research must be found not only within the field of ethnomusicology, but also within the cultural practices of the community that is the subject of the study. It is important to establish the positions from which one is able to comment as an insider and a researcher.

In the paragraphs above certain facts come to light. Firstly, insider researchers are better placed as members of their musical communities to carry out certain types of research. This is particularly pertinent to the study of internal change. For instance, chapter two illustrates how as an insider it is possible for me to assess the extent to which dance tune prototypes can be varied. It is also possible to see more easily the differences between types of variation in the music of the pipe and fiddle repertoires, for example. As a practitioner I am aware of where the boundaries are when it comes to individual interpretation. It is possible for me to see clearly when, where and how traditionalists and those with a more experimental spirit come into conflict. I am aware that in some manifestations of traditional music there is a tendency to create a unified style, and I have a good sense of where to look to discover to what extent this is occurring. It is also easier for insider researchers to see where change related to conflicting cultural practices arise. One such area is the attitude toward processes of change that reinforce notions grounded in ethnicity. Yet another is the ability to meaningfully assess the results of the meeting of incongruent cultural systems, not just in musical terms, but also economically, as in the area of copyright investigated in chapter five.[35] Secondly, as scholars, insider researchers are provided with many of the methodological tools necessary to enable them to represent their findings to the academic community as a practicing representative of another community with different cultural values. Simultaneously it is possible to represent those same findings in a way that traditional musicians can understand within the community itself.

---

[35] See section headed Perceived Threats from the Shift to an Online Environment in chapter 5

However, there are still problems relating to the means of representing internalised knowledge and to the use of certain terminologies. As discussed, in the performance practice of traditional music in Ireland and Scotland and in many forms of transmission, notation and the use of text in general are peripheral. The invisible nature of oral knowledge can lead to erroneous assumptions by outside observers. Ethnomusicological methodologies are in general reliant on the use of text when analysing and interpreting music of oral traditions. Where music notation is discussed, terms for different types of notation must be made clear. In the case of traditional Irish and Scottish dance music the use of the term *cognitive* when referring to particular kinds of notation could be encouraged. Lived bi-musicality is a useful tool in this context as it is easier to see where ethnomusicological notions of textual analysis do not match up with ideas grounded in the oral tradition. In Titon's emerging epistemology for ethnomusicology the interpretation of lived experience, a concept that has its foundation in phenomenology, can be a greater aid to understanding than the reading of texts. Some of these ideas directly applied to a methodology for studying non text-based music could mean avoiding reliance on notation and put more emphasis on musical practices within the oral system.[36]

With Jeff Todd Titon's concept of *musical being* it is becoming easier for insider researchers to explain knowledge in a subjective way, putting more emphasis on musical practices within the oral system. His methodology puts more value on the experiencing of music as a way of understanding. In this way the methods of research can be directly correlated with the ways in which musical experiences exist in the field. Titon's theories give an alternative to the traditional methodologies offered by ethnomusicology, social anthropology, ethnology and musicology by which one can place oneself in the field as both musician and scholar. The voices of *insider* and *researcher* can be dealt with separately during the processes of research, analysis and representation, but the whole process leads ultimately to a cohesive methodology. The roles need not be mutually exclusive but can exist side by side, 'reconfiguring the ethnomusicologist's idea of his or her own self, now emergent rather than autonomous'.[37] This concept helps the insider researcher to establish a platform for the different identities that need to be employed in order to engage with informants and academics. This represents, as Titon puts it, a convergence of paradigms in ethnomusicology to produce a *musical-being-in-the world.*

---

[36]Some of these ideas have already been explored in other cultures for the learning of musical instruments, the Suzuki method being one example.
[37] Titon, Jeff Todd: 'Knowing Fieldwork' p99

Connectedness is a value that challenges the postmodern critique of contemporary society. I am willing to assert this ecological value and its intimate relation with music-making and fieldwork on the grounds that the survival of far more than ethnomusicology depends on it.[38]

Bearing in mind the insider researcher's lived experience in the field, as much as it is practically possible data collection can be done orally, producing analyses in keeping with the oral nature of the music. Allowing the collective knowledge of practicing musicians to inform the research process during each stage of its development is vital. Their practices will indicate areas where new kinds of activity are taking place. The same methods used to establish dialogues with practitioners within these areas can offer new pathways for research.

In this study I have used participant observation as a means of following events through a) case studies of traditional musicians in Scotland and Ireland: establishing current performance practices and exploring the boundaries of innovative practice amongst traditional players, b) a survey of patterns of transmission an reception amongst traditional musicians in Scotland and Ireland today and c) detailed analysis and interpretation of key issues affecting aspects of the musical culture that have arisen in direct response to recent changes in performance and transmission practices

---

[38] Titon, Jeff Todd: 'Knowing Fieldwork' p99

2 Arranging and Interpreting Traditional Music

> There is a dichotomy in this music; a gentle old tradition of the land and the sea against the neon technology of our growing urban culture.[39]
>
> *Martyn Bennett, 1997*

This chapter focuses on current musical techniques and devices used in contemporary arrangement with reference to historical precedents. The first section gives some background on the subject of arrangement and accompaniment with historical and contemporary examples. This is followed by a more detailed examination of issues relating to pitch. The third section contains information on the theoretical musical constructs of traditional dance music forms and rhythmic devices supported by examples of contemporary arrangement. The next section looks at the relationship between ornamentation, melodic and rhythmic structure. Finally, some conclusions are drawn that are intended to give an impression of the scope and effects of past and current influences on arrangement and to clarify the parameters within which contemporary traditional dance music is interpreted in arrangement and performance practice today.

Traditional dance music continues to revolve around the melodic material that constitutes the repertoire – the tunes. Traditionally bagpipes and fiddles were the main melody instruments in Scotland, and in Ireland flutes and whistles were also used. The Irish whistle possibly dates as far back as the C13th. Although clay, cane and wooden whistles have been found most of those in current use are made of metal, though some people use wooden ones. The Irish flute in traditional music dates back to the C18th. The wooden version of the instrument has been adopted in preference to metal flutes, as ornamentation is easier to execute. The low whistle, originally made of wood, is descended from vertical flutes of the C16th. The low whistle was re-introduced to Irish music in the 1970s by Finbar Furey and modern ones are made of metal.

Today the whistle is one of the most commonly played traditional instruments in Ireland and is also popular in Scotland. The fiddle, uilleann pipes, Irish wooden flute and low whistle are still the most popular melody instruments alongside more recent ones such as the mandolin, banjo, accordion and melodeon (or box). Although there is some instrument-specific repertoire for whistle, flute, bagpipes, box and fiddles, a great proportion of the

---

[39] Martyn Bennett cited in 'From Newfoundland to Bothy Culture' by Phil Udell: *Rock 'n 'Reel*, ed. Sean McGhee (Cumbria, England; #30, Spring 1998) p13

material is shared. Other instruments that can play melody lines are the concertina, highland bagpipes, bouzouki, guitar, clairseach and harmonica. Of course it is possible to play the tunes on many other melody instruments, but those mentioned above are the ones most common in bands that perform dance tune sets.

A Brief History of Accompaniment

By the end of the C6th Irish ecclesiastical music had its own form of tablature, and it has been suggested through interpretation of the writings of St. Adamnan in his *Life of St. Columba* that Irish monks also used counterpoint. It is said that, far in advance of their Roman counterparts, the sense of harmony, the diatonic scale and musical form were quite well developed.[40] In Ireland, the close relationship between ecclesiastical chant and harp music at that time implies some cross-over in terms of shared musical ideas. In Ireland the bards certainly accompanied themselves on harps, and there is a strong possibility that they had developed their own system of harmony dating back at least to the C6th.[41] Another reference to the accompaniment of melodic material in traditional music from the writings of the Scottish historian John Major in his book The *Annals of Scotland* (published in 1521) states that the brass-stringed harp was also used to accompany the voice and other instrumentalists in Scotland.[42] The earliest pictorial references to harps in Scotland were found on C9th stone carvings in Perthshire and Forfarshire.[43]

Although harpers were primarily concerned with accompanying song, they also composed ceremonial material that almost certainly included harmonic accompaniment. Irish planxties were a form of instrumental music written in honour of the harpists' patrons. Some of the repertoire from this period has survived, but only as airs (the melodic material), so the style of accompaniment is obscured. During Cromwell's reign in Ireland (1650 to 1660) many harps were destroyed in Ireland (though the most famous Irish harper, Turlough O Carolan lived from 1670 to 1738, just after this period). As far as harmonic accompaniment goes, this decline in harp music seems to have marked the end of an era. By the C18th in Scotland traditional music was almost certainly monophonic, consisting of 'single, unharmonised melodic lines, sometimes accompanied by bagpipe drones, or by percussion such as meat bones clicked together; but in its orally transmitted

---

[40] Gratton Flood, W. H.: *A History of Irish Music* (Shannon; Irish University Press, 1970) p11
[41] Ibid. p10
[42] Collinson, Francis: *The Bagpipe, Fiddle & Harp* (London; Routledge & Kegan Paul, 1983) no page numbers.
[43] Ibid. no page numbers.

state it did not have supporting harmony.'[44] The harp tradition as it exists today came about through a revival at the end of the C19th. By this time functional harmony was well established and was promoted in harp accompaniment by players such as Patuffa Kennedy, daughter of Marjorie Kennedy Fraser. Her motivation in playing the instrument was to accompany her mother's arrangements of the Gaelic songs she had collected, arrangements characterised by the influence of the Victorian harmonic conventions of the time. At that time there was no tradition of harp accompaniment in the Hebrides themselves for these songs.

In its contact with other genres of music harmony has frequently been used in arrangements of traditional material. Generally speaking these settings would not have constituted a part of the orally transmitted repertoire as played by ordinary traditional musicians, but instead were removed from a community-based context into 'art music' settings. For example, the harpsichord, spinet (or virginal) and clavichord were introduced to Ireland in the first three decades of the C16th and it is most probable that arrangements of traditional dance tunes were made for those instruments around that time. The Irish jig (from *geige,* meaning fiddle) and reel were certainly popular dances amongst the Anglo-Irish ruling classes during that period.[45] The Fitzwilliam *Virginal Book* dating from this time contains Irish tunes, one of which is arranged by William Byrd. Shakespeare also mentioned several Irish tunes in his plays that were popular at the time.

From around the end of the C17th classical composers added harmony to traditional melodic material from Scotland and Ireland. For instance, in 1692 Henry Purcell used the traditional bagpipe tune *Cold and Rough* in an arrangement for brass in a *Royal Birthday Ode.* A popular tune of the day, this probably became known to him through the playing of the many Irish regiments that kept Irish pipers at the time. Manuscripts published in 1700 such as *An Old Virginal Book* dating from 1690 show that in the C17th many Scottish tunes were arranged for a variety of instruments such as lute, cittern and viol.[46] The nature of that instrumentation implies an added bass-line or counter-melody. Other accompanying instruments of the time were the harpsichord, 'cello, small pipe organ, lute and harp.

---

[44] Johnson, David: *Music & Society in Lowland Scotland in the Eighteenth Century* p93
[45] Gratton Flood, W. H.: *A History of Irish Music* p160
[46] Johnson, David: *Music & Society in Lowland Scotland in the Eighteenth Century* p209

In areas where there were more musically literate traditional musicians (the cultural centres of larger cities) ideas were more quickly assimilated into the tradition. Scottish musicologist David Johnson has the following to say on C18th arrangements.

> [E]very time a new book of national songs was produced it was necessary to try to fit the tunes up with classical harmony. Scottish folk-tunes of the period give a preliminary, but misleading, appearance of being amenable to classical harmonisation; when the crucial moment comes, however, they have a way of slipping out of the arranger's grasp and running away, chuckling to themselves . . . nearly all of them also include melodic procedures which defeat harmonisation altogether.[47]

The composers of the *Scots Drawing Room style* (from 1720-1745), which centred on Edinburgh, tried to develop a more sophisticated kind of Scottish music that would appeal to refined tastes. This new movement was partly due to the Act of Union of 1707 and had its roots in nationalistic sentiments. Arrangements were by musicians with knowledge of classical music who were influenced by the Italian chamber music of the time. This style used traditional tunes arranged with Italian chord progressions, like the *Passamezzo Antico* and the *Pazzamezzo moderno,* both international clichés of harmony at the time.

Harmonising traditional melodic material in Mixolydian or Dorian modes that contain flattened 7ths frequently led arrangers to take liberties with the melodies.[48] The 7th degree of the scale was often sharpened to facilitate modulation to the relative minor or dominant.[49] In the drawing room style, tunes were often transposed from their original keys to more 'fashionable keys' such as E*b*. Virtuosity in the sense of being able to play in 'difficult' keys was not a concept that had any significance to the ordinary players of the time providing music for dances, who mostly stuck to tunes with tonal centres of A, G, and D (as discussed later in this chapter). The only exception to this was the emergence of the style of Scots fiddling founded by Neil Gow (b1727) in the late C18th. Many of his tunes were set by his son Nathaniel (also an orchestral player), with indications of chords and bass lines given in the manuscript. Needless to say, it is evident that after a while fancy arrangements of tunes began to be eroded as rural players either ignored bass lines at their dances or simply let the 'cellist vamp his way through with classical harmony remaining 'outside Scottish folk music until the nineteenth century'.[50] In more remote areas away from cities and cultural centres, particularly where different tuning systems prevailed such

---

[47] Johnson, David: *Music & Society in Lowland Scotland in the Eighteenth Century* p150
[48] See section on modes later in this chapter.
[49] For examples see *Leith Wynd* and *There's Three Good Fellows Ayont yon Glen* in *Scottish Fiddle Music of the C18th* by David Johnson (Edinburgh; John Donald Publishers, 1984) pp42-45.
[50] Johnson, David: *Music & Society in Lowland Scotland in the Eighteenth Century* p93

as the Hebrides and West Highlands of Scotland, Donegal and the Shetland Isles, these fashions had almost no influence at all.[51]

It is not until the C19th that we see accompaniment in the form of harmonisation entering the common domain. In C19th Ireland, regulators for the uilleann pipes were invented to provide a way of playing chords along with the melody. This method of accompaniment was partly designed to make traditional Irish pipe music more palatable to the tastes of Victorian listeners for whom monophonic material was difficult to appreciate.

Around 1880 the concertina was beginning to arrive in the homes of ordinary people in western Europe and the colonies. By the beginning of the C20th century button accordions were also common accompanying instruments in mainland Scotland. In Scotland the piano also made a big impact as an accompanying instrument at the end of the C19th, especially in the north-east of Scotland, while in Cape Breton it became established as the main form of accompaniment for fiddle music amongst Scottish immigrants. Today it is still an important feature of the Cape Breton style.

The ease of chordal accompaniment on the guitar and the chromatic layout of the piano and accordion combined to promote western concepts of harmony and techniques associated with it, such as modulation, transposition and the importance of a moving bass line. The arrival of the piano accordion in Scotland forced certain changes on musical practitioners that led to a split between accordionists and fiddlers in the Shetlands. Up until the arrival there of accordions, fiddlers had played unaccompanied. The loud volume of accordions made them more popular in the dance halls than fiddles, with the added benefit that they could add chords to tunes. Where accordionists found material that did not fit with the newer pianistic style of their accompaniments it was dropped. This meant that certain types of tunes went out of fashion or were left to solo fiddlers as accordionists developed a repertoire specific to their own instrument.

The adoption of the accordion, piano and guitar as accompanying instruments had other effects. The introduction of these instruments (with their capability of being played melodically, rhythmically and harmonically all at once) resulted in the reduction of the roles of traditional instruments throughout the C20th to their most basic function as providers of melody. Although it still goes on in fiddle and pipe band traditions the

---

[51] This is discussed in more detail later in this chapter.

practice of unison playing has declined in performance and social settings over the last century as bands with a variety of instruments with different roles can offer a melody player, bass line player and rhythmic and chordal accompaniment.

Additionally, the arrival of new instruments forced older tuning systems to alter as the equal tempered scale took hold (as discussed later in this chapter). This mainly affected fiddlers because, unlike pipers, they could adjust their tuning more easily. Early recordings of Shetland fiddle music with piano accompaniment make for rather excruciating listening with two tuning systems being employed simultaneously. They show that some time elapsed before musicians became accustomed to a new kind of intonation. Pipe tuning tended to be more resistant to change, perhaps because the tradition of pipe bands is more self-contained as a genre, and because of the design of the chanter. Now, according to piper Martyn Bennett, as pipes are more commonly included in mixed ensembles even the notes of the highland bagpipe chanter can being tuned in accordance with the tempered system.[52] However, clashes of intonation can still be heard in a line-up of bagpipes with other modern instruments such as saxophones. [53]

One of the more important innovations was the introduction of the bouzouki to Irish traditional music. Like the guitar, piano and accordion it can be used for melody playing as well as rhythmic and harmonic support. The first person to use the bouzouki in this way was Dublin born Johnny Moynihan in the mid 1960s. It was soon adopted by high-profile players Andy Irvine and Donal Lunny and has since become established as an accompanying instrument in both Ireland and Scotland because its open tuning it is held by many to be more versatile for the accompaniment of traditional music than the accordion or piano. The most common tunings are G,D,A,d and A,D,A,d, though there are several others in use.

During the 1970s O Carolan's harp compositions were revived, mainly through the efforts of Derek Bell, harpist with Irish group The Chieftains. The instruments and playing style

---

[52] Martyn Bennett in conversation with the author 10.11.99
[53] One thing that is interesting to add here on the subject of highland bagpipe tuning in Scotland, according to Simon McKerrell, is that there is evidence that the overall pitch of the Highland Bagpipes has been affected by competition playing in recent years. There may be other reasons why the pitch has been raised e.g. to conform to our modern temperament and standard (A440Hz). However, in competition, if a piper begins a set after his or her predecessor in a competition with a slightly higher-pitched instrument the sound will immediately come across as brighter, giving that player an advantage over previous competitors. For this reason some players have deliberately requested makers to provide them with pipes of a slightly higher pitch. (Simon McKerrell in conversation with the author 17.4.03). Simon is a competitive Piobaireachd player and PhD candidate at the RSAMD, Glasgow.

today differ from their predecessors. The strings of the harp (or clairseach, as it is known in Scotland) are generally no longer of metal but are made of nylon or gut and are plucked with the finger pads rather than the nails and the general design, including the dimensions, is different. Scottish harpist Mary McMaster use a metal-strung harp and has done much to promote the metal-strung clairseach in recent years. Today the harp is occasionally included in dance music ensembles.

The inclusion of percussion in dance music has a long history, the most common instruments being the frame drum and the bones in both Scotland and Ireland. Today rhythmic accompaniment is most often provided by bodhrán, bones or drum kit, though it is increasingly common for other percussion instruments to be used in ensembles. In Scotland a kit made up of a variety of instruments such as a djembe (played either with the hands or brushes) plus a couple of optional toms and assorted woodblocks or cowbells, snare and cymbals is becoming popular, partly due to the influential playing of James Mackintosh of Scottish band Shooglenifty.

The origins of the Irish bodhrán are in the ritualistic customs of Ireland (as performed by the Wren Boys), but it also has associations as a war drum. There is evidence of a similar type of drum being used as an accompaniment to fiddlers in the Borders of Scotland towards the end of the C18th. In Walter Geikie's etching, exhibited at the Royal Scottish Academy in 1821, an itinerant fiddler is portrayed alongside a percussionist with a frame-drum.[54]

A great many bodhrán styles have emerged in recent years. It can be played with a variety of sticks or brushes as well as the hand. Today it is widespread as an accompanying instrument at sessions and in performance contexts for both Scottish and Irish dance music. Its popularity has led to several developments in both the instrument itself, such as a higher tension in the skin and tuneable instruments. Today the bodhrán could even be said to have become a virtuoso instrument in the hands of certain players such as John Joe Kelly who have taken techniques such as pitch bending to extremes. The bones (two rib bones held in the hand and clicked together) remain in common use as percussive accompaniment, especially in Irish music but also in Scotland.

---

[54] Campbell, Katherine; *Three Images of Scottish Fiddle Playing* (Aberdeen; NAFCo, 27.7.01)

It is interesting to see how a drum score functions when used as an accompaniment to melody-based material in pipe bands and compare this with other forms of percussive accompaniment. Drumming bands have a longstanding tradition in their own right in military music that shares some of its repertoire with dance music. The main tune types in a Scottish pipe band are marches (4/4 or 3/4), strathspeys, flings, hornpipes and jigs. The relationship between the music of pipe bands and dance music in Scotland is increasing as highland bagpipes are more frequently included in dance band ensembles due to improvements in amplification. The rhythms of the pipe bands have also entered the dance music genre. Snare drum patterns, for example, can easily be transferred to the bodhrán.

Although some of the material used by pipe bands is shared with dance music it has its own set of values when it comes to adding percussion. In a competitive setting, variation in the music of pipe bands is provided more often by the drum score than the melodic material played by the bagpipes. There are standard rhythmic forms that exist for accompanying common tune types. The first beat of the bar is always the loudest. In 3/4 the first beat only is accented and in 4/4 the first and third beats are accented, but with a lighter stress on the third. When arranging a drum score, a drum major will use these basic rules as a starting point from which to develop his or her own style of beatings. A drum major will place accents where he or she feels they should go, often dictated by the melody. The use of the hemiola is a common rhythmic device.

A sign of a successful pipe band is when its beatings are imitated by other drum majors. Winifred Crawford, drum major with the Kinross & District Pipe Band, states that the most significant changes in drumming in this context come from the influence of individual drum majors. [55] The rhythmic accompaniment is the sole responsibility of the drum major who arranges beatings for each set. Winifred Crawford described how she produces a drum score, often composing away from the pipers. She generally knows the selection (or set) of tunes well enough if it has been in the repertoire of the pipe band for some time. Occasionally the resulting drum score is too complex for a tune and has to be re-written more simply. It is normal to re-write the drum score in a new way in order to 'change the feel of a tune' as it is re-cycled for use in a new context.[56] The accompaniment of a particular tune and the selection or set it is in is never fixed. Tunes are frequently given a

---

[55] Crawford, Winifred: Interview with the author, 7.6.00
[56] Ibid.

new accompaniment by the same drum major or picked up by different pipe bands who rearrange them in their own style.

In both dance band and pipe band situations similarities can be seen between these types of percussive accompaniment that have come about as a result of the melody-based nature of the music. In both instances a strong relationship between melody and rhythmic accompaniment is indicated. Experienced players will say that to be a good bodhrán player it is necessary to have internalised a large repertoire of tunes, and the same is true for drum majors. Individuality in the arrangements of both genres of music is encouraged and arrangements are flexible and transitory. In a pipe band setting, as in dance music, any number of different arrangements for a single tune are possible.

In the following sections I have selected some of the musical features and devices employed that are specific to the traditional dance music of Scotland and Ireland in order to illustrate some of the theoretical constructs behind them. The intention is to give some background to how these features have been used in arrangement and are being dealt with by accompanists today. I have concentrated only on those aspects of the music that give it its distinctive features in order to show how these may be affected by changes in transmission practices. I will begin with characteristics relating to pitch, melodic features and harmonic structures including the use of the drone and then move on to rhythmic devices and ornamentation.

Occasionally it is difficult to discuss one musical feature without mentioning another with which it is inextricably linked, for example the relationship between pitch sets and the double tonic. Where this is the case I refer the reader to the sub-section that deals in more detail with the topic in question.

Features of Traditional Dance Music Relating to Pitch

When describing the patterns of intervals and pitches that make up precise scales I use the term *pitch sets* to correspond with that of Jack Campin in his treatise 'Scales and Modes in Scottish Traditional Music'.[57] This is the most comprehensive contemporary text on the subject dealing with all the scales and modes in current use as well as giving an indication

---

[57] Campin, Jack: 'Scales and Modes in Scottish Traditional Music' (http://www.purr.demon.co.uk/jack/Music/Modes.abc , July 2002)

of the extent to which each is used. In his paper Campin refers to 'absolute pitch sets', which are a collection of specific notes chosen from the 12 available pitches (a key), and 'relative pitch sets', which are patterns of tones and semitones that can give 12 different absolute pitch sets (scales).[58] In order to create a specific mode a tonal centre must be combined with the relative pitch set. His paper contains examples that illustrate his findings, which can also be applied to much instrumental Irish traditional music.

Modes

At sessions today traditional players often indicate the tonal centre of tunes in fairly ambiguous terms, simplifying the names of keys and modes. If a player calls out a tune in A, for example, they could be referring to any number of possible modes or gapped scales that begin their ascent with the 'tone, tone, semitone etc.' pattern of intervals, and have the note A as their tonal centre (A Mixolydian or A Ionian, for example). Similarly, what may be called E minor could be Dorian, Phrygian or Aolian, all with the interval of a minor 3rd between the first and third degrees of the scale. The naming of 'keys' at sessions is not intended as a precise indication of mode but a guide to the accompanist whose job it is to work out the harmonic possibilities from the tune.

The modern use of *church modes* (such as Mixolydian and Dorian) to describe traditional Scottish and Irish music can be useful as a method for rationalising the theoretical constructs behind scale systems or pitch sets. The idea of using 'church modes' when analysing traditional music began in the late C19th when ethnomusicologists borrowed the idea in order to classify the scales employed in the musical material they were collecting in a commonly recognisable format. A substantial quantity of Scottish and Irish dance music can be classified using this system and it can be useful as a general guide where appropriate. However, there are some difficulties that need to be borne in mind when using this system.

Certain phenomena such as the double tonic (described in more detail later in this section), some forms of ornamentation and ambiguous tonal centres make classifying material in this way difficult. Many traditional tunes that have a basic pitch set that can be classified as being in a certain mode contain ornamentation that complicates the matter. The reason is

---

[58] Campin, Jack: 'Scales and Modes in Scottish Traditional Music' (http://www.purr.demon.co.uk/jack/Music/Modes.abc, July 2002)

that the notes used in the ornamentation expand the pitch set outside the limits of the mode in question, as in inflection.

Inflection is a form of ornamentation that varies a scale by using a different combination of sharps, flats or naturals when descending or ascending, as in the classical melodic minor scale. Tómas Ó Canainn gives the existence of inflection in Irish music (which features particularly in uilleann pipe music) as a good example of why classifying tunes into modes is not a good way of studying tunes.[59] Tunes that are inflected often contain both flattened and sharpened versions of the same note (the 7th degree of a scale, say), which would make it impossible to assign a particular mode to it. As Tómas Ó Canainn states, Irish tunes do contain modal elements but they rarely move out of one absolute pitch set and 'to base a method of analysis on the assumption that they do [as one would have to if tunes contained both a natural and a sharpened 7th] seems foolish.'[60]

Inflection also occurs today amongst fiddlers, mandolin players and flute players as well as pipers. In Liz Carroll's version of Irish reel *The Cup of Tea*, for example, the relative pitch set is expanded from seven notes to nine. She has also shifted the absolute pitch set down a fourth (in other words, she plays it in a different key). Liz's version contains the notes G, A, B♭, B, C, D, E, F and F#. When transposed to the original pitch we get D, E, F, F#, G, A, B, C and C#. The original pitch set only uses D, E, F#, G, A, B and C, so it can be seen that some contemporary players are pushing the boundaries when it comes to variation and breaking away from a fixed absolute pitch set through their use of inflection. However, this is rare and only occurs in the playing of more advanced instrumentalists, more modern compositions and individualised versions of tunes.

To sum up, many traditional tunes use more than one identifiable mode within them, making it difficult to assign a specific mode or tonal centre to them. Ornamentation that utilises notes outside the pitch set also complicates matters.

Pitch sets and equal temperament

It is possible that inflection developed in response to a growing ambiguity over the pitches of certain notes. Alternatively, it could already have been established long before the

---

[59] Ó Canainn, T: *Traditional Music in Ireland* p32
[60] Ibid. p32

influence of the tempered scale. The process of classifying material modally must be also be simplified in order to take into account the fact that often the precise pitches being discussed are not from within the equal-tempered scale, especially in bagpipe and some fiddle repertoires. Let us look first at the pitch set of the highland bagpipe (*great pipe* or *piob-mhór*).

Several attempts have been made to describe this precisely, with varying degrees of accuracy. I shall use the research done by J. M. A. Lenihan and Seumas McNeill of Glasgow University between 1954 and 1961 as described by Collinson[61] in which eighteen bagpipe chanters were compared. One confusing factor is that not all chanters have exactly the same tuning. One explanation is that newer chanters are being manufactured closer to equal temperament. Additionally (as mentioned previously), competition piping has forced an over all rise in the pitch of chanters in recent years as some players desire the advantage of a 'brighter' sound. Despite this lack of standardisation it is possible to get an idea of the intervals used in a pitch set.

Martyn Bennett, Scottish piper and composer, thinks of his highland pipes as a B*b* transposing instrument. However, when using staff notation, all Highland pipe tunes are written in A with one, two or occasionally three sharps in the key signature although the pitch of the instrument over all is generally slightly sharper than concert pitch at about 459 frequencies per second. To avoid complication I shall also use this method to describe the pitch set as it is the intervallic relationship rather than the precise pitches of the notes that is important in this instance; so when I use the note A, I am actually talking about a note that is generally closer to B*b*.

There are nine notes on the highland bagpipe chanter plus two drones. The bottom A of the chanter is the A above middle C, an octave above the tenor drone and two octaves above the bass drone. The bass drone produces a very strong 2nd harmonic that leads some listeners to think that one of the drones must be a fifth above the A, in other words an E, but this is not the case.

I shall describe the pitches of the chanter as they ascend. The lowest note of the chanter (notated as G) is very slightly less than a tone below the next note, A, and Martyn Bennett

---

[61] Collinson, F; *The Traditional and National music of Scotland* (Routledge and Kegan Paul Ltd., London, 1966) p164

says he was encouraged to play it as sharp as it would sound (but not as sharp as a G#)[62].
The note A on the chanter could be said to be the fundamental, as the drones are both As.
The next note in the scale is a B, a tone above the A. Following the B is a note close to
mid-way between a C and a C#. I shall call this a *neutral C*. The D that follows is slightly
sharper than a perfect 4th above the A according to Collinson, although it may be the result
of an auditory illusion if listened to in sequence after the neutral C. Martyn Bennett stated
that the D and E are a perfect 4th and 5th above the fundamental on his pipes[63], so there is
some degree of ambiguity about the precise relationship of the D to the other notes, and it
may vary from chanter to chanter. It seems that in some sets of pipes it is sharper than a
perfect fourth above the A. The E is generally a perfect 5th above the A. The next degree is
an F#, but is generally slightly flat. Another neutral note follows, between a G and a G#, an
octave above the lowest note on the chanter. The high A is generally an octave above the
low A, though I have heard that sometimes the highest two notes of the chanter are not
exactly an octave above the two lowest ones.

Collinson describes the scale used by the highland bagpipe as being 'neither the natural nor
the tempered scale', in tune with itself and harmonising only with its own drones.[64] There
is no denying that having chanters made with definite pitches proves the existence of a
pitch set different to the equal tempered diatonic one. It is more difficult to prove that a
similar vocal and fiddle scale existed because fretless fingerboards and the nature of the
human voice mean there is no evidence of precise pitch placement. However, it is known
that fiddlers tuned their fiddles sharp to correspond the pipes when it was necessary (and I
have also heard of a matchstick being placed under the strings just above the nut to raise
the pitch), the A string corresponding with the bottom A of the highland bagpipe. Similarly
in Irish music when fiddlers played with uilleann pipers they tuned the D string to
correspond with the fundamental of the chanter whatever that pitch may be, sometimes as
low as a B*b*.[65] Today some Irish fiddlers such as Cathal Hayden still use this device in a
band situation in order to keep the fingering of a tune in an easily playable position on the
instrument.[66]

Unlike the highland bagpipe chanter, the uilleann pipe chanter covers a range of two
octaves from D above middle C to D two octaves above. The instrument is nominally in D

---

[62] Bennett, Martyn; In conversation with the author, 10/11/99
[63] Ibid.
[64] Collinson, F; *The Traditional & National Music of Scotland* p164
[65] Ó Canainn, Tómas; *Traditional Music in Ireland* (Routledge and Kegan Paul, London 1978) p104
[66] Four Men and a Dog; 'The Sally Gardens' on *Long Roads* (Castle Communications PLC, 1996) track 5

(though the precise pitch may vary slightly from instrument to instrument) with three drones, each an octave apart. The highest of the drones is in unison with the low D of the chanter.

The tuning of the uilleann pipes resembles the tuning on the Scottish highland bagpipe in that the basic pitch of the C of the lower chanter octave is between a C natural and a C#. However, the pitch of this note is extremely variable, depending on how it is fingered. The pitch of the F(#) of the upper octave can also be varied widely. However, it is common to have a fixed key for the F(#) on modern instruments which limits this flexibility. As Ó Canainn explains, the neutral notes are very important. The high neutral F and the neutral C are the 7th degrees in the scales of G and D respectively.[67] The lower octave F on the uilleann pipe chanter has today been pretty well fixed as an F#. If this happened relatively recently, and the lower F was also flexible in pitch, the pitch set would be very similar to that of the highland pipes, but focussed around D instead of A.

It is important to note how much of the vocal repertoire was related to the bagpipes and fiddle in Scotland. *Canntaireachd* is a form of vocalisation that comes directly from the Scottish Highland piping tradition and was an oral learning system. Different combinations of vocables were used to describe the degree of the scale and the type or ornament to be used. Canntaireachd was used to teach pipers the Ceòl-mór (or Pìobaireachd) of different piping schools, and the vocal sounds produced imitate the individual timbral qualities of each note of the chanter. *Ceòl-beag*, translated as light music, employs a pseudo-canntaireachd for singers. *Puirt-a-beul* (mouth music) was a vocal form of instrumental music used for dances if there was no fiddler or piper available. Margaret Fay Shaw suggests this music could have been the origin of pipe tunes, not the other way around.[68] Presumably it was also another way in which tunes could be kept in a common repertoire. In the Shetland Isles many fiddle tunes had words to them, and in both Scottish Gaelic and Irish Gaelic vocal styles, the words and the melody are believed to be integral to one another (though different words were sung to different tunes in different areas).

Because of the close links in repertoire there is no reason to think that pipers, fiddlers and singers would have used different pitch sets. A collection of recordings published in the 1970s by the School of Scottish Studies at Edinburgh University has examples of fiddlers

---

[67] Ó Canainn, Tómas; *Traditional Music in Ireland* p87
[68] Shaw, Margaret Fay; *Folksongs & Folklore of South Uist*, p72

using a different tuning system to the equal tempered one.[69] These fiddlers are from the West Highlands and the Shetland Isles. In the recordings neutral tones can clearly be heard that correspond with those in the pitch set of the Highland bagpipes. Naturally there were vocal styles that developed independently from the instrumental music (and it should be noted that the fiddlers, vocalists and pipers rarely played in ensemble. If they did play in groups, it was generally with instruments of the same, type and in unison). Studies made of these other vocal styles, such as Waulking songs, indicate that the scales used were similar to the pipe scales. There are recordings made in the 1950s, again by field workers from the School of Scottish Studies in which neutral notes can quite clearly be heard.[70] According to Collinson, in the 1950s the older traditional singers of South Uist flattened the major third and sixth in a manner 'akin to the bagpipe scale'.[71]

It was common in the West Highland fiddle tradition to imitate pipers by using drones. Much of the repertoire of tunes is shared, though it is still common to hear a fiddler play a tune and describe it as 'a pipe tune', and vice versa. A sample made of the keys of over 250 Scottish tunes from a selection of printed and oral sources showed that the biggest group (nearly 40%) were in the key of A. Because the highland bagpipes are nominally in A, I suggest that the prevalence of the key of A in the Scottish fiddle repertoire is due to the fact that much of the repertoire is shared with pipers. Indeed, it is even called 'the pipe key'. 24% of the remaining Scottish tunes surveyed had D as their tonal centre, which may indicate an Irish influence. This is borne out by a similar study of the repertoire of Irish tunes. The most common tonal centre for Uilleann pipe tunes is D, then G. Just over 36% of 370 Irish fiddle tunes sampled had tonal centres of G, with another 36% centred on D.

If the repertoire of fiddle music is examined, it can be seen that much of the ornamentation that centres on the neutral tones is of a melismatic type, like rolls (or turns in classical terminology). This suggests an ambiguity about those particular notes, though it could simply be that it is easier to perform an ornament of that nature around the second finger in that position. On the fiddle, inflected notes also tend to be ones that fall under the second finger more often than not. As in uilleann piping, the reason for this could be that the pitches that lay under the second finger position were slightly ambiguous once the

---

[69] Cooke, Peter, Series Ed: *Scottish Tradition volume 4; Shetland Fiddle Music* (Tangent Records; Recorded and documented by the School of Scottish Studies, Edinburgh University, *1973*) & *Scottish Tradition volume 9; The Fiddler & his Art Music* (Tangent Records; Recorded and documented by the School of Scottish Studies, Edinburgh University, *1988*)

[70] _____: *Scottish Tradition volumes 2&3; Music of the Western Isles* (Tangent Records, 1971) & *Waulking Songs from Barra* (Tangent Records, 1972)

[71] Collinson, F: *The Traditional and National Music of Scotland* p118

tempered scale had begun to take hold. It is also possible that because fiddle intonation changed so fast during the C20th some fiddlers chose pitches to suit the occasion, depending on which instruments were accompanying them.

I would suggest that some older tunes were adapted to fit the tempered system by replacing neutral F, G or Cs with natural or sharpened ones. I have discovered several tunes where different versions exist, having evolved from a single source and mutating in the process into different modes. One such is *Jenny's Chickens*, an old tune known in both Scotland and Ireland. There are two versions I know of, one in the Aolian mode and one in the Dorian mode, both with a tonal centre of B. What I believe happened was that the high G and the C were originally neutral. After the influence of the tempered scale, the neutral notes were altered to put the tune into modes identifiable within the tempered system. In the case of the Dorian version the neutral notes were sharpened, whilst in the Aolian version they were flattened.

It is likely that the use of scordatura would have given fiddlers an additional range without having to alter fingering patterns. The use of scordatura (alternative fiddle tunings to the conventional G d a e' tuning) is on the wane in Scotland and Ireland, though it is still used by some players such as Shetlander Aly Bain. The three main scordatura tunings were tied to the keys of D and A. As mentioned previously, the forerunner of the fiddle in the Shetlands, the gué, was a bowed instrument with a pair of strings. When the modern four-stringed violin was first introduced, as Peter Cooke suggested, tuning two pairs of fiddle strings to the same intervals an octave apart would increase the range by an octave without the need to change fingering patterns. [72] The tunings (from the bottom up) A e a e' (achieved by tuning the two bottom strings up a tone) and G d g d' (tuning the two top strings down a tone) were both used in the Shetland Isles. This could have been the reason why Scordatura is more common in the Shetlands than it is in mainland Scotland. In Ireland scordatura tunings are also used by fiddlers, usually the G d g d' tuning. Using scordatura would avoid the problem of not being able to play neutral notes down an octave using the same fingering patterns.

Alastair Hardie wrote of the *pipe mode* in which some fiddle tunes are played. Whilst acknowledging that a bagpipe 'cannot play the note G#', he attributes the fiddler's playing of such a neutral note 'to the influence of the pipe mode'. He suggests that nowadays

---

[72] Cooke, P *Shetland Fiddle Music* p41

fiddlers can switch from a repertoire of pipe tunes using one pitch set to another more modern repertory of fiddle tunes that utilises a more modern tuning system.[73]

The harmonics around the 2nd finger area of the fiddle may also give us a clue as to the precise positioning of the neutral note. Take the C zone on the A string, for example. There are three nodes that correspond with the three possible finger positions; the C natural, neutral C and C sharp. The nodes in these positions give us three different harmonics. The node in the C natural position gives the upper partial of a flattened G (or a sharpened F#) two octaves and a fifth above the node point (7th partial of A). The node between the C natural and C sharp positions gives the upper partial of an E two octaves and a neutral third above the node point (6th partial of A). The node in the C# position gives an upper partial of a flattened C# or sharpened C (a *neutral C*) two octaves above (5th partial of A). Of these three possible positions for the second finger the harmonics in the neutral position could be seen as the strongest indicator of the positioning for this 'neutral' pitch. If the harmonic is sounded, the pitch of the harmonic, an E, matches the E string, the next string up from the A string. Although the harmonic is two octaves higher, the positioning of the neutral note could very easily be tuned using this harmonic. The flattened G, which is got from the node in the C natural position, has few immediate connections with the notes of the open strings.

There is enough evidence that specific neutral tones were a fundamental part of the make up of the pitch sets used by all traditional musicians from the Shetland Isles, throughout the Gaelic speaking areas of Scotland, and Donegal. This older pitch set can still be heard today in the playing of some of our older instrumentalists such as west highland fiddler Áonghas Grant from the Fort William area and Caoimhín MacAoidh from Donegal. A substantial part of the repertoire played by Áonghas is closely associated with the Highland bagpipe repertoire of his region. The fiddle repertoire of Caoimhín has been fairly isolated from other regional traditions of Ireland and perhaps less susceptible to the influence of equal temperament.

To return to the subject of adding harmony, perhaps the modal nature of traditional material (that may or may not include notes outside the equal tempered scale) is understood better by those who choose to add accompaniment. Scottish guitarist and arranger Tony McManus, for example, does not see working with modal material as

---

[73] Hardie, Alastair: *The Caledonian Companion* (London; EMI Music Publishing Ltd., 1981) pp51/118

harmonically limiting. His determination to maintain the modal character of Scottish traditional music informs the way he constructs his accompaniments, and he has devised a series of strategies for dealing with this through the use of open tunings and the restriction of notes used in the accompaniment to those in the absolute pitch set.[74] Many players believe that the guitar is more suited to the accompaniment of fiddle music from the west highlands because it can be played harmonically in a more versatile way than the piano or accordion. Áonghas Grant, for example, prefers a guitar accompaniment to a piano one. Other contemporary accompanists have attempted to outline suitable strategies for the harmonising of melodic material by bouzouki and guitar players.[75]

Tonality

Linked to the concept of harmony is the notion of tonality. From about the C16th onwards, western European high art music was constructed around developing a sense of harmony with a strong focus on tonality. In order to make sense of traditional scales within their own system of musical values some Victorian collectors were tempted when transcribing tunes to alter what seemed unnatural. Because certain features of traditional Scottish and Irish music were outside the musical experiences of C19th collector-musicologists brought up in the western European classical tradition, modes were often ascribed to ambiguous melodies for the sake of simplifying their classification. Endings of tunes were changed to land on a perceived tonic because it was generally accepted in the western classical system that the note a tune ended on was the keynote. This, Margaret Fay Shaw states, 'is why some collectors in the past have changed notes to sound more 'agreeable', or brought the final note of a tune to where they felt it ought to be[76] (in the same way that editors admitted rewriting tunes that had irregularities in their timing. Margaret Fay Shaw cites a collection made between 1760 and 1780 by Joseph and Patrick MacDonald, published in 1784 in which this type of alteration occurs).[77]

The importance of tonality is key to the development of any one system of music. In his book written in the latter part of the C19th Helmholtz wrote that 'tonality is developed in

---

[74] The information here was taken from a workshop given by Tony McManus for traditional guitarists at the *Fiddle '99* Festival held in Edinburgh, November 1999. More information on this can be seen in the section entitled *Harmonisation of a Melody-based System*.

[75] For example, see Hans Speek's web-published article entitled 'Chord Scales and accompanying Irish dance music' (http://home.hccnet.nl/h.speek/dadgad/theory.html 1996)

[76] Shaw, Margaret Fay: *Folksongs & Folklore of South Uist* (London; Routledge & Kegan Paul Ltd., 1955) p74

[77] Ibid. p77

38

very different degrees and manners in the melodies of different nations'[78] and there is a distinct difference between the concept in western classical music and traditional Scottish and Irish dance music. In the traditional music of Ireland and Scotland the circular nature of some dance tunes means they do not resolve to a specific tonal centre. A tonal centre is not always established at an early point in the tune as it is in classical music. Also, single tunes do not stand up in their own right as pieces in this genre but are arranged into sets that make up a selection for a dance. This process is variable. The same tunes may not always be used in a set, or they may not be played in the same order. This means the 'modulations', as a tune in one mode goes into another, are not fixed.[79] The use of the double tonic is another feature specific to this music that makes establishing one tonal centre difficult.

Many traditional tunes have only one tonal centre. However, as touched on earlier, the double tonic occurs when more than one tonal centre is used within a tune and it is a very common feature of traditional dance tunes (the origins of which Campin suggests may have come about through the influence of Nordic music[80]). It is a way of creating interest in a tune whose roots lie in a melody-based musical system, rather than one that is based on functional harmony. In order to understand it one needs to know how the double tonic sounds (hear example notated in figure 1 on the accompanying CD). I have used the symbols e_____ and d_____ above and below the stave to indicate the changes of the tonal centre.

As A Thòiseach[81]

Attributed to Captain Fraser

Figure 1

---

[78] Helmholtz, H: *On The Sensations of Tone* (NY; Dover Publications, 1954) p240

[79] See section on *sets* later in this chapter.

[80] Campin, Jack: 'Scales and Modes in Scottish Traditional Music' (http://www.purr.demon.co.uk/jack/Music/Modes.abc)

[81] Track 15 on accompanying CD

This tune, for example, demonstrates the double tonic in its most simple manifestation. As mentioned previously, in order to create a specific mode, a tonal centre must be combined with the relative pitch set. In the case of tunes that employ the double tonic, two tonal centres are combined with the relative pitch set with the effect of two modes being utilised within one tune. Campin describes the double tonic as a shift between two adjacent points in the absolute pitch set. In other words, two modes with different tonal centres are present within the piece, but each uses the same selection of notes from the absolute pitch set. This is unlike the changes that occur within pieces of western classical music where major and minor keys and chromatic modulations occur using all 12 notes of the chromatic scale.

The tune in figure 1 appears to utilise both E Dorian and D Ionian modes. Generally one of the two modes present in a double tonic tune is used more than the other to give a dominant tonal centre. However, in some instances the use of two tonal centres is divided so equally between phrases in a tune that the over all tonal centre is ambiguous. In these cases it is impossible to ascribe a particular mode to the piece. In practice, what session players tend to do in this instance is to say that the piece is in E minor *and* D, and leave the accompanist to figure out where the changes occur.

Sometimes the first turning has one tonal centre that predominates, while the second turning has another. In this instance, for example, the players would say that the first part is in E and the second part in D. Quite often where these shifts in tonality come is open to the interpretation of the accompanist. In the example above, E Dorian is used more frequently and begins each phrase, but each phrase ends with D Ionian.

The most commonly used modes are the Mixolydian and Dorian, both with a flattened 7th. Tunes that contain the double tonic feature most commonly use two adjacent tonal centres. So, for example one gets the following pair of tonal centres both using notes of the same pitch set for a tune predominantly in A Mixolydian:

A Mixolydian   A B C# D E F# G
G Lydian   G A B C# D E F#

For a tune in the E Dorian and adjacent D Ionian modes one would get the following tonal centres, also using notes from the same pitch set:

| E Dorian | E F# G A B C# D |
| D Ionian | D E F# G A B C# |

As can be seen from these examples, all four of the above modes utilise the same pitch set, and it is the case that some tunes employing the double tonic feature do not use an adjacent mode but a more distant one that shares the same pitch set, the Mixolydian and Ionian, for example. The tonal centre that is introduced first is often maintained as a pedal or drone in pipe music of both Scottish and Irish origin, but just as frequently the drone of the second tonal centre is sounded throughout, and occasionally the sounded drone will not correspond to the tonal centre of the piece at all, depending on where the mode employed is placed on the instrument in question.

Some combinations of tonal centres appear more frequently in the tunes of a particular region or the repertoire of a particular instrument, for instance in the highland bagpipe repertoire, which includes many tunes with the B Mixolydian and A Lydian pairing. However, the use of the double tonic is not solely a feature of Scottish tunes. In a sample of ten Irish tunes and ten Scottish ones, eight out of the ten tunes in both groups employed the double tonic.

Tunes featuring the double tonic are very difficult to arrange using functional harmony because the inherent lack of chromatic possibilities gives these tunes their special character. In an examination of C18th music treated in this way Johnson states 'double-tonic sequences were misunderstood once they reached the classical arranger'.[82] Notes were sharpened or flattened in order to make it possible to harmonise them in a way that conformed to a western classical harmonic sound world.

Harmony and the drone

The concept that using consonant intervals as the basic construct of harmony, as opposed to *inharmonic* or *dissonant* ones, was a key feature in the development of western harmony. But again, theoretical musical concepts developed for classical music are inappropriate for describing the construction of traditional music. Another important

---

[82] Johnson, David; *Music and Society in Lowland Scotland in the C18th* (London; OUP 1972) p159

technique used to enhance melodic material is the drone, as developed in the bagpipe traditions of Scotland and Ireland.

In his description of the qualities of different intervals, Helmholtz classed sevenths and seconds, common in all bagpipe music, as 'perfect dissonances'. The adjectives he used to describe those intervals are *disturbing, rougher, harshest* and *less pleasant*.[83] This could be an indication of how the refined sensibilities of the time may have responded to the sound of the bagpipes, and perhaps traditional music in general. When listening to bagpipe music that is accompanied by a drone or drones the conventional notion of consonance and dissonance must be put to one side.

The chanters of both the uilleann pipes and the Scottish great pipes are tuned to the drones using harmonics as a guide. Higher partials produced when playing tunes play a fundamental part in the pieces as a whole. Any interval produced as a result of playing the notes of the chanter with a drone, providing they are in tune with one another, is harmonically acceptable to a piper. Collinson describes how the highland bagpipe 'only harmonises with its own drones'.[84] He also suggests that the 'particular flavour' of the pipe scale is achieved because of the irregularity of the intervals of the scale that add variety and character.

Tomás Ó Canainn, on the subject of harmonisation, sees no reason why the interplay of drone and melody had to be enhanced any further. However, as Ó Canainn says, 'the system [of drone and melody] is self-sufficient and has been the basic formula for much of the world's folk music for thousands of years.'[85] One problem created by imposing functional harmony onto this material is that a bass line is implied. This undermines the function of the drone as a grounding from which all intervals are created in conjunction with the melody to form specific harmonic relationships. Unless each harmonic system is fully understood, the drone and western harmony cannot be used simultaneously without creating problems for performers.

Some uses of the drone in traditional music have gone out of fashion as other instruments have been brought in to accompany what were once solo styles. For example, the *long variation set* or *fiddle pibroch* developed as a parallel to the *ceòl-beag* of the highland

[83] Helmholtz, Herman: *On The Sensations of Tone* p183
[84] Collinson, F: *The Traditional & National music of Scotland* p164
[85] Ó Canainn, T: *Traditional Music in Ireland* p88

bagpipes from around 1730. Although it was an unaccompanied style of fiddle playing, performers used certain techniques based on a drone to enhance the tune. Use of scordatura tunings meant the players could use drones and double-stoppings with ease. Drones on the higher strings were used as frequently as the low ones. This style of playing is no longer common amongst the fiddle players of Scotland.

The use of drones generally in contemporary arrangement cannot be underestimated, however. It is an extremely important device in the accompaniment of most melody-based material today. A drone that is the pitch of the tonal centre is not always used. Sometimes a piper will sustain a drone throughout a tune that is the 4th or 5th degree of the scale. Drones are not only used by pipers, but pseudo drones in the form of a pedal bass are frequently used by bass players, accordions, guitarists and bouzouki players in their accompaniments of melodic material. Guitar tunings such as Dropped D or DADGAD reinforce this idea. They have been devised specifically to cater for the kinds of harmonic accompaniments that can sustain a pedal whilst going through a series of chord progressions.

Functional harmony and a monophonic system

Helmholtz pointed out that harmony had only come to western Europeans during the three centuries prior to the time he was writing in 1863, and concedes that 'finely developed music' existed in 'ultra-European' nations without harmony.[86] However, the development of western European art music and introduction of chordal instruments made the idea of enhancing traditional melodic material with harmony inevitable.

According to Helmholtz, much ancient church music was provided with sharps and flats in order to make it 'in accordance with the scheme of our major and minor harmonies'.[87] In the C16th, Palestrina and Gabrieli were responsible for transforming older scales to major or minor, thus establishing an 'interval connection in the tissue of the chords' and enabling the music to be harmonised.[88] He concluded that the result of the work of composers such as Palestrina and Gabrieli was a 'sacrifice of a great variety of expression which depended on the diversity of the scale'.[89] Transposition, modulation and other such devices were subsequently developed in order to replace what was lost.

---

[86] Helmholtz, H: *On the Sensations of Tone* p vii
[87] Ibid. p236
[88] Ibid. p248
[89] Ibid. p253

Today, arrangers tend to be more sensitive to the inherent qualities of the music and have adapted their methods of accompanying what was traditionally unaccompanied or played in unison. In order to create interest in the harmonic arrangements without overtly resorting to modulation or transposition as it is used in western classical music, new devices for creating contrast, building and releasing tension and adding variety have emerged amongst guitarists and bouzouki players over the last forty years or so. These include use of pedals, suspensions, and a variety of imperfect cadences at the ends of phrases or sections. In bouzouki playing there is also a great degree of movement around scales that both emphasises the tune in a rhythmic way and enhances it melodically. In the arrangement of traditional dance tunes into sets, the point at which a new tune with a different tonal centre begins could be said to be the equivalent of modulation. There is an art to arranging tunes in this way and it is often exploited in order to 'lift' the music at key points so as to give impetus to the dancers or to create interest for the listeners.[90]

At sessions today difficulties occur in ensemble playing where accompanists playing chord-based material are extemporising accompaniments. Sessions are open to all so there is always the risk of harmonic confusion. Because there are a number of harmonic possibilities there is the danger that a bouzouki player, say, and a guitarist's chords will clash at some point, which does little to support the tune. This generally leads to the chords being called out by one player, with accompaniments restricted to simple chord structures.

A technique often used by guitarists to create interest in a tune in place of modulation is to transpose the harmonic accompaniment to a related mode while the tune remains in the original one. This reflects the way melodies themselves are constructed, especially those that use the double tonic. For example, the first turning may be played using a variety of moving chords over a pedal. As variation, the second turning may transpose the whole of this accompanying figure to a related degree of the mode, the tonal centre based on the 7th or 4th degree of the original scale, say. The pedal may change or remain the same. This has the effect of creating harmonic movement in the over all sound whilst retaining the integrity of the melody. As suggested previously, the use of various open tuning systems avoids difficulties associated with the harmonisation of material that employs the double tonic and the Dorian, Aolian and Mixolydian modes with their flattened 7ths. It is easier in these open tunings to avoid the controversial 3rd and 7th degrees of the scale.

---

[90] More information on the arrangements of tunes into sets as related to form is contained in the next section.

Using an 'open' system of harmonic accompaniment also facilitates the use of pedals and movement around chords related to the pitch set. The folk guitarist Davey Graham is credited with inventing the tuning known as DADGAD in the late 1960s or early 1970s. This guitar tuning became popular with folk guitarists such as Bert Jansch. It attracted guitarists in the traditional music world because of its modal characteristics. As Scottish guitarist Tony McManus said, they could 'noodle away' at sessions and not get in anybody's way, harmonically speaking.[91]

The guitarist Pierre Bensusan has taken and developed DADGAD and uses it as his standard tuning, and many other folk guitarists have followed his example. Tony McManus finds that DADGAD can become rather uninteresting if used consistently for accompanying, but comments that there are some things that can be done in DADGAD that are not possible in other tunings. For instance, it has helped guitarists develop techniques for melody playing. One of the characteristics of this tuning is the G and A strings (II and III) set consecutively. Tony McManus has used this to his advantage to develop his harp-like technique, borrowed from players of the flat-picking style. He uses a different string to play consecutive notes in a series, allowing each to ring on with a bell-like quality. He applies this technique in a variety of situations from melody playing to bass lines.

An important feature of Tony McManus's playing is this use of several different guitar tunings, deliberately chosen for their suitability in accompanying specific melody types. Throughout the C18th players of the plucked stringed instruments of the time (cittern, lute & mandora) used a variety of tunings like the guitar, bouzouki and mandola players of today. Tony McManus is not the first modern guitarist in this genre to use different tunings. However, he has taken the technique further than many other guitarists who have tended to stick to one tuning only. Instead of trying to fit melodies to a rigid system of harmony, Tony McManus uses the features of individual tunes to determine the tuning used as well as the style and content of the accompaniment.

---

[91] Tony McManus: Guitar workshop (Edinburgh; *Fiddle '99* Festival, November 23.11.99)

Rhythmic Structure

Rhythmic pattern making in music has at its root the motions of the human body. Rhythmic structure is contrived rather than natural. Traditional forms of music for marching, dancing and work have a highly regulated rhythmic structure in order to co-ordinate the movements of a group of participants. Therefore, the fundamental basis for this kind of traditional music could be said to be in the ritualistic rhythmic ordering of human motion. This is the line from which the melodic material is suspended.

I will first give an explanation of the basic forms of the most common dance tune styles, then move on to describe some of the more common rhythmic devices that feature in contemporary accompaniment. Conventional music notation and audio examples have been used as illustration. I also make passing reference to emerging methods of analysis that deal with rhythmic structures in relation to melody and dance in contemporary arrangement. The examples I have used to illustrate certain rhythmic devices in contemporary arrangement are by Shooglenifty, Lúnasa, Cian, The Kinross and District Pipe Band, Mike McGoldrick, Alasdair Fraser, Tony McManus, Martyn Bennett and Liz Carroll.[92] These examples all come from commercial recordings with 'fixed' arrangements. In this instance the notation is descriptive as it refers to specific arrangements. However, my analyses are supported by witnessing live performances from all of these practitioners and by comparing the types of rhythmic devices with those used at sessions in which I participated.

Generally speaking, arrangements on recordings and at gigs tend to be a little more complex than what you would hear at a live 'informal' session because the musicians have had time to plan them. However, all the rhythmic devices used by the sample group of musicians also occur at sessions. Sometimes they are obscured amongst a group of backing players using different styles, but they are consistent with the features as performed by more 'high profile' players. From this information one can assume there are certain recognisable conventions when it comes to rhythmic backing in arrangement today.

---

[92] See appendix 4 for recording details

I have sometimes used terminology from Cooper and Meyer when analysing the rhythmic structure of the music.[93] This methodology focuses on architectonic levels and borrows some terms traditionally associated with the rhythmic features of poetic metre (such as the iamb and trochee) and is useful in certain circumstances. As with the classification of traditional tunes into modes, there are a few problems with this method. Concepts such as metre and tempo do not always adequately explain arbitrary phenomena that occur in traditional music that is dance-based. Individual rhythmic interpretation of some tune types can vary considerably depending on the context, and often basic time signatures are not adequate for describing the subtleties of metre in traditional dance-based musical structures. For example, jigs can be 'swung' to give a slightly 'dotted' rhythm or not, depending on the setting and the preference and ability of the player.

It is becoming more common in rhythmic analyses of traditional dance music to emphasise the close relationship between the music and dance, the spatial and physical relationships with sound where rhythm is the meeting place. The Norwegian ethnomusicologist Jan-Petter Blom, one of whose specialist areas is Norwegian traditional dance music, claims the difficulties that arise in rhythmic analysis come about because there is a denial of the body in western music.[94] The fact that rhythm is a part of human physiology has led him to develop his own system for the analysis of traditional dance music that is based on experiencing a synchronisation between music and body movement.

Blom believes that in order to correctly interpret dance music one must note the experiential differences in the music as opposed to notated representations. Musicians must have an internalised experience of dance rhythms based on extra-musical knowledge. In this way the stresses and releases of rhythm in the music can be directly related to physical impulses in the body. For him, the most important part of rhythmic analysis is what happens between beats. Subtle rhythmic nuances mediate between the strong pulses. These patterns of stress and lightness indicate to dancers in a dynamic way the points of tension and release, providing continuity and 'swing'. Jan-Petter Blom's ideas are not based on theory but experience. Through the realisation of rhythm as experience musicians are confirming the relationship between music and dance. Only then can a true analysis be made.

---

[93] Cooper, GW & Meyer, Leonard B: *The Rhythmic Structure of Music* (U.S.; University of Chicago Press, 1960)
[94] Blom, Jan-Petter: 'What Makes Music Dance?' (Aberdeen; NAFCo, 26.7.02)

Throughout my research I have borne Blom's ideas in mind, and the notated and audio examples provided should be backed up with a feeling of motion in the body.[95] I have attended both ceilidhs and more informal dance gigs where I participated in the dancing. As a fiddler I have played for dances both at ceilidhs and in more informal settings. As a result, my awareness of the physical relationship between the dancers and the musicians has increased. Knowledge of the dance forms gained through the experience of dancing has led to a more refined appreciation of the subtleties of rhythmic structure. Through participating in a dance band that is the medium for getting the rhythmic content over to the dancers I know how vital it is to understand concepts such as stress, pace and form, and to be able to create moments of tension and release within a dance set.

Prototypic rhythmic structures and dance forms

Parameters of temporal structure can be ordered into stereotypical forms. There is a limited palette of structural components used in this music, each relating to a specific dance style or a march. There is no concept of rubato (speeding up or slowing down of tempo, as it occurs in some Romanian Gypsy music, for example). The music remains strictly in tempo as the dance forms dictate. Traditional music for dances or marching has a regular pulse and a symmetry in its construction with equal bar and phrase lengths.

Some common dance prototypes

Before looking at the ways in which contemporary practitioners use rhythmic structure as a basis for developing their style, it is important to understand the basic musical forms for dances. This section gives an outline of the most commonly used dance types with added western classical time-signatures to help give a clearer picture of the metre. Many traditional musicians do not think in terms of metre, bars and time-signatures, but a significant proportion have an understanding of the terms used.

Single jig – Used in both Scotland and Ireland this comprises a repeated pattern of six beats with a strong accent on the first beat and a lighter one on the fourth, each phrase being one bar in length (6/8)

---

[95] Jan-Petter Blom, when conducting his research either dances to the music he is listening to or watches how the musicians move to the music they are playing e.g. the way they tap their feet.

Double jig – Like a single jig but with longer two-bar phrases. A repeated pattern of six beats with a strong accent on the first beat of the group of six and a lighter stress on the first beat of the second group in the phrase (6/8)

Slip (or Hop) jig – One of the oldest dance forms in Ireland, this constitutes a repeated pattern of nine beats with a strong accent on the first beat (9/8)

Slide - More common in Ireland, this comprises a repeated pattern of twelve beats with a strong accent on the first beat (12/8)

Reel – Common in both Scotland and Ireland this is made up of a repeated pattern of eight beats with a strong accent on the first beat; variation - with a strong accent on the first beat of the first group of eight and a lighter stress on the first beat of the second group (4/4 - 8/8)

Polka – A relative newcomer to the repertoire of dance tunes, this is constructed with a repeated pattern of four beats with a strong accent on the first and third beats (2/4)

Waltz - A repeated pattern of three beats with a strong accent on the first beat (3/4)

Hornpipe – Another fairly recent addition to the dance repertoire, this is made up of a repeated pattern of four beats played in a dotted rhythm with a strong accent on the first beat and a lighter stress on the third beat (4/4)

Strathspey – A Scottish dance form of a repeated pattern of four beats played in a dotted rhythm (inverted trochaic) with a strong accent on the first and third beats (4/4).

Highland – This is said to be a corrupted version of the Scottish strathspey that is common in Donegal, Ireland, characterised by a dotted rhythm and fast tempo.

Other dance types such as mazurkas and barn dances are common in areas of Ireland and are relative newcomers. Marches are also sometimes played in dance music sets. Originating in the military tradition of bagpipe bands and the fife tunes of marching bands, some of the material has been absorbed into the repertoire. It is interesting to note that in

recent years the Swedish polska has also entered the frame due to increased exposure and interest in Scandinavian traditional music.

In order for the reader to understand the analyses I will be making later in this section it is necessary to break these dance form down into their component parts from a musician's perspective. In the minds of those who learn tunes orally the phrase is generally considered to be the smallest unit of a tune.[96] The next unit comprising several phrases is called a turning, part or section. In bagpipe music there could be several sections as variations on the first. The next unit, but not the largest, is the tune, most commonly consisting of two or three sections. Finally we have the set, which is a planned or spontaneous combination of tunes fitted together to form a whole piece. Many sets are performed at one session or gig.

The motif

The smallest structural sub-unit in specific cases is the *motif*. These motifs are structural in the sense that the characteristics of these rhythmic patterns are what identifies the music to dancers. The polka and the strathspey are good examples of this. In a polka, there is a rhythmic motif that is unique to the form, one variation of which can be seen in figure 2.

Figure 2

The *strathspey* has a characteristic inverted trochaic pattern - a *snap* (see figure 3). This is a dotted rhythm with a short note (a semi-quaver, say) accented and played *on* the beat followed by a longer note (a dotted quaver). The rhythmic structure of these pieces uses the interplay between 'snapped' and 'un-snapped' pairings of notes as a way of identifying the dance as a strathspey.

---

[96] A name sometimes given to learning tunes by phrases is 'chunk and link'.

Figure 3

Phrases

A tune can have several sections, or turnings but it is almost universally made up of phrases with an even number of bars. This is in contrast to the folk dances of Norway and Sweden, say, (to compare the traditional dance styles of near neighbours) which tend to have less regular structures that mirror their dance forms. The reason for the highly regularised structure of Scottish and Irish tunes is unknown, but is almost certainly linked to dance forms. Some older Shetland tunes, the Aald Reels, for instance, have uneven phrases and odd bar lengths, but these tunes, whose original dances have been forgotten, are now very much in the minority.

Turnings

The section, or turning, is most commonly made up of two or four phrases. Generally, each section is repeated once before continuing to the next. The standard form for a traditional reel, jig, strathspey or polka would be AA BB. If there are extra turnings or sections the pattern would continue like so: AA BB CC DD etc. Highland pipers tend to add their own variations without repetition and often extend what began as a tune in two parts, to one with five or more.

Arranging tunes in sets

Each tune is repeated as many times as the players feel appropriate in the context, but generally at a session each is repeated three times. This seems to have become standard

---

[97] Track 16 on Accompanying CD

practice at many sessions and enables participants to plan for the next tune and join in even if they do not know the other players. A set length for dancing may vary depending on the type of dance or the number of dancers. At a session many dance tunes could be strung together to form a set as different players show off their skills.

It is useful to note at this point that although protocols and guidelines for how sets are arranged, in practice no set is fixed in structure. Indeed, it may only ever be played once in a particular formation. Rose Subotnik suggests an entirely different concept of structural wholeness between those of the oral tradition and that of western art music.[98] She claims the concept of a structural whole only really came into being in the C19th. It is certainly the case that the sets of tunes played at sessions are nebulous in their construction.

There are certain dance styles that traditionally go together in sets, for example the strathspey and reel. Generally at ceilidhs, gigs and sessions, dances of one type are strung together to form a set of reels or a set of jigs, say. However, some bands, particularly pipe bands, will go from reels to jigs within a set. In pipe band music, individual tunes are not repeated as often as they might be in a dance band situation, and there may be many more tunes in a set of pipe tunes in order to make it a reasonable length. It is common in this context to have five to eight tunes to a set.

A certain degree of flexibility exists when playing tunes for dances or at sessions and an ability to respond to live events is important. For structured dances such as a ceilidh it is important for the players to know the dances so that they can play tunes with the correct number of bars to fit the dance steps (using sixteen or thirty-two bar jigs, say) and at the correct tempo for the dance steps to fit in. Occasionally a set needs to be shortened or extended on the hop.

For a typical instrumental concert band in a contemporary 'gig' setting, where structured dances are not appropriate, it is up to the musicians to build high and low points into their set in order to develop an interaction between musicians and dancers. The musicians can decide spontaneously on the length of certain sections to control the mood of the occasion. Building a set has developed into something of an art form in itself, and many devices have been developed to create interest within each one. Certain shifts of tonality that occur when

---

[98]Subotnik, Rose Rosengard: *De Constructive Variations: Music and Reason in Western Society* (Minneapolis & London; University of Minnesota Press, 1996) p73

going from one tune to another can dramatically alter the feel of a set by shifting the emphasis to higher or more relaxed levels of tension. The repertoire of commonly used keys is smaller, and the double tonic feature means that certain shifts are more common than others. The sequence of a typical set could begin with a tune in D major, then go to one in E minor and end up with a shift to A major. Each tune has its own characteristics that make it suit a particular place in a set. Some tunes are good openers, some are good for creating tension in the middle section, and some give an uplifting finish, for example.

In the context of a recording, more consideration must be given to the arrangement of a set, as it has to withstand repeated listening. Each tune must have its own characteristic qualities that make it a unique component within the whole. The shaping of one tune within a set gives that tune a defining character that distinguishes it from the others. A good arrangement of a set of tunes in a band setting uses a combination of timbral, rhythmic and harmonic devices.

Tempo

Because traditional music has its origins in different dance styles, tempo has been fairly standard in the past for each one. Breandán Breathnach sets out guidelines for the tempo of dance sets in his book Ceol Rince na hÉireann as follows: [99]

Double jigs -	dotted crochet	= 127
Single jigs -	" "	= 137
Slip jigs -	" "	= 144
Reels -	crochet	= 224
Hornpipes -	" "	= 180

In competitive pipe bands the tempos for reels and jigs tend to be slower than the tempos given for dance music, probably due to the fact that is was traditionally used for marching to. For the rest though, it is commonly agreed that the tempo at which tunes are played has increased in recent years. Older players have been known to complain that the detail in a tune is often lost nowadays because of the speed at which the younger players perform them. A quick comparison of the tempos used by a random sample of contemporary bands with the tempo markings given by Breandán Breathnach revealed this to be true, with an

---

[99] Breathnach, Breandán: *Ceol Rince na hÉireann* (Dublin; Talbot Press, 1976) pxiii

average increase of 24 bpm to crochet 248 for reels. The reasons for this are most likely to have come about through a distancing from the older context of structured dance events and the increase in a competitive spirit amongst younger players that has led to a more virtuosic style of playing.

Rhythmic Devices in Contemporary Arrangement

I would now like to examine certain rhythmic devices that are commonly used in contemporary dance tune arrangements. The reader will need to refer to the CD of examples at this point.

Dual metres and dual pacing

Dual metre deals with two different 'time signatures' working concurrently. The obvious example is in some renditions of strathspeys where triplets feature strongly to give a 12/8 - 4/4 dual feel. Francis Collinson highlighted the difficulties of dual metres when analysing Scottish Waulking songs. Sometimes he would come across a piece that appeared to be in 2/4 and 6/8 time simultaneously, a piece with phrases containing odd numbers of bars, or bars with variable numbers of beats.[100] Collinson was dealing with vocal material in this instance, but the same feature also crops up in arrangements of dance music today.

Dual pacing is to do with two different (but related) tempos running concurrently. Many contemporary arrangers play on the feature of dual pace between the melody and accompaniment in their arrangements of traditional material. It is interesting to note that again this is a feature of the melodic material that has been adapted for use within accompaniment, as in the use of dual tonalities.

Although these devices are fundamentally different to one another I have dealt with them both together because the way they are employed creates a similar effect of rhythmic ambiguity within an arrangement.

The melodic material of reels and jigs can go at quite a pace, and often the rhythmic accompaniments are constructed at a pace that is slower than the melody. In example 1(a

---

[100] Campbell, J L & Collinson, F; Eds: *Hebridean Folksongs II: Waulking songs from Barra, South Uist, Eriskay & Benbecula* (Oxford,;Clarendon Press, 1977) p265

jig) the rhythmic groupings at the primary level in the melody are twice as frequent as those of the accompanying figure in the drum part. It could be said that there is a dual metre as well as dual pace in the arrangement of this piece. In order to demonstrate this, the fiddle part is written in 6/8 (jig) time (as it would be in a tunebook) and the drum part in 12/8 (as a slide).

Example 1

The same idea is illustrated in example 2. The feel of the syncopated rhythm in the accompanying guitar part implies longer metrical units in the accompanying figure. There is a dual pacing here. The rhythmic units in both the melody (with slight variations) and accompaniment repeat in each bar within the metrical timescale of each instrument i.e. the rhythmic motifs in the melody occur twice as frequently as do those of the accompaniment.[101]

Example 2

Metrical ambiguity can be used as a means of varying the pace of a melody line while keeping the pace of the accompaniment the same. By playing a melody at half or double speed the pace of the piece is altered. In example 3.1, a reel provides the basic pulse of the track.

Example 3.1

---

[101] Tracks 1 & 2 on CD

The pace is altered in the middle section of the piece when the notes of the melody are transformed into a slow strathspey at a quarter of the speed of the reel. This new melody is given typical features of a strathspey by 'dotting' the rhythm (example 3.2).[102]

Example 3.2

The drum part, however, maintains the same pulse throughout. Thus dual pacing is introduced providing variation in the middle section without having to introduce new material.

The use of dual metre is used in the arrangement of drum beatings, although the music would never be notated. For example, Winifred Crawford uses this device in her arrangement of the jig, *Lochiel's Welcome,* by Alex Cameron for the Kinross & District Pipe Band. Although the pipes are playing in 6/8, the drums are in 4/4 (example 4) leading to some interesting cross rhythms. [103]

Example 4

---

[102] Track 3 on CD
[103] Track 4 on CD

One of the most important ways of creating interest in arrangements is the use of accenting in both the melody and accompaniment. I shall deal with accenting generally at first and then move on to the specific use of the hemiola as a rhythmic device.

Accents in accompaniment do not necessarily follow the rhythmic groupings of the melody. Take example 5, which is the B section of the reel *Peter Brown's* from the recording of this tune by Mike McGoldrick with Ed Boyd on guitar.[104]

Example 5

The melody is played on its own to begin, with its own set of rhythmic characteristics. When the guitar enters the accents in the accompanying rhythmic figure change the rhythmic groupings of the melody. Although Michael McGoldrick continues to play the melody in the same way this variation in rhythmic stress helps establish a new pace. Where accents in the melody and off-beat guitar part come together in the second section of the tune (first beats of bars 1, 5 & 7 in ex. 5) an over all pattern of accenting is established. This new rhythmic pattern shapes the whole piece into phrases with a slower metrical pace and provides a sense of forward motion.

In their arrangement of the jig *The Butlers of Glen Avenue*, [105] members of Irish band Lúnasa create ambiguity in the metre through accenting. Although the melody is a

---

[104] Track 5 on CD
[105] Track 6 on CD

straightforward two-part jig (each section having eight bars repeated - AA BB), accenting in the guitar part varies the B section to give a pattern of alternating 9/8 and 6/8 bars (example 6).

Example 6

It also makes the two B sections into one whole section on another rhythmic level because the accompaniment is not a straight repetition of the two B sections. At the point that the melody repeats on one rhythmic level, the accompaniment is only half way through its own section, and in the middle of a bar of 6/8 (see bar 7 of lower part, ex. 6).

In this case the arrangers have paid particular attention to certain melodic features. The melody lends itself to the rhythmic treatment provided by the accompaniment because the motif marked a) in the upper part of example 6) comes in different places within a bar of 6/8, beginning alternately on the 1st and 4th beats of the 6/8 pattern each time it occurs. By changing the accents in the accompaniment and making some bars 9/8, the first three rising notes of melodic figure a) get consistent treatment that reinforces a key feature of the melody.

When accents are used to create a hemiola, the feature normally only occurs once or twice in an arrangement to provide some variety. It occurs in both accompanied and

58

unaccompanied music. In guitar and bouzouki playing, using the hemiola as a device has developed to the point where it has become standard in rhythmic accompaniment. For instance, a bouzouki part that is providing a pulse can add interest and variation by changing an emphasis on patterns of two to patterns of three, and vice versa. The positioning of this rhythmic feature is generally dictated by the melody, but can also be deployed despite melodic groupings to build up tension at the ends of phrases.

In Lúnasa's arrangement of *Rosie's Reel* (example 7) accents provided by accompanying flute parts create a hemiola, but the harmonic changes in the accompanying flute parts take their cue from the 4/4 feel in the melody part. [106]

Example 7

Another example of use of the hemiola in arrangement is demonstrated in Winifred Crawford's arrangement of *Gillian's Reel* (example 8).[107]

Example 8

More often the feature is built into the melody itself. The two examples that follow demonstrate how this works with first a jig, then a reel. In the first bar of the example, a section of an arrangement of *John Brady's Jig* by Irish group *Cian* [108](example 9), every second quaver beat of the 6/8 is emphasised by the rhythm parts in the accompaniment. The melody lends itself to this grouping because of the pairs of falling notes (marked with an asterisk).

---

[106] Track 7 on CD
[107] Track 8 on CD
[108] Track 9 on CD

Example 9

Similarly in bar 2 of *Ross' Reel no. 4* as played by Alasdair Fraser and Tony McManus (example 10) we see that the first, fourth and seventh quaver beats of the 4/4 are emphasised, bringing out the significant notes of the melody.[109]

Example 10

Further explorations in arrangement

The rhythmic devices mentioned above are common to most arrangers of traditional material. However, every genre, band, drum or pipe major and arranger has the chance of making their mark by creating a distinctive arrangement of their own.[110]

In the arrangement of sets of tunes for pipe bands in a competitive situation it is common to change from one type of dance tune to another, e.g. from a reel to a 3/4 march and then a jig, as well as changing the tempo within a selection. Beatings for tunes are constantly being re-worked. Pipe or drum majors who are successful in competition are frequently mimicked by other arrangers keen to emulate their style. This type of behaviour also occurs in settings outside the competitive arena as arrangers seen to be breaking new ground spark off other practitioners into new areas of experimentation.

---

[109] Track 10 on CD

60

Lúnasa also employ a device that uses the placement of chord changes that act as accents. Their arrangement of the A section of the reel *Goodbye Miss Goodavich* is an interesting case (see example 11).[111] The melody alone is quite clearly trochaic. However, the combination of the bass accents and the chord shifts make the fourth beats of the bar act as pivots between one rhythmic group and the next in the melody. This alters the rhythmic groupings to give the melody an amphibraic feel over all.

Example 11

In *Rosie's Reel*, as arranged by Lúnasa, a change in feel in the B section second time around is provided by a variation to the emphases in the melody line (example 12) without altering the accented beats in the accompaniment.[112]

Example 12.1

The change from a trochaic feel (12.1) to an amphibraic one (12.2) is achieved by the melody player anticipating by a quaver beat what was previously an accented note in the original part and tying it over onto what was previously a stress on the third beat of the bar. Those notes marked in example 12.2 with an asterisk are therefore converted to upbeats, leaving the accompaniment to provide the accents on the third beat of the bar. The over all effect is to create a sense of increased momentum at this stage in the arrangement.

---

[111] Track 11 on CD
[112] Track 12 on CD

61

Example 12.2

Some musicians are prepared to go further than others to explore the scope of possibilities for arrangement. Martyn Bennett has stretched this idea to its limits with his ventures into cross-genre collaborations and experimental music whilst keeping one foot firmly in the traditional music camp. In his own words he is a one-man producer, composer, technician, and performer of Scottish music. He has released six albums including a collaboration with his mother Margaret (originally from the Isle of Skye who, as well as her academic achievements as a major figure in the field of Scottish folklore is also a Gaelic singer). Being experimental whilst adhering to original forms that define the music is a challenge to him. It becomes a compositional device in its own right, like having a limited palette in painting.

Bennett plays with the standard forms of jigs and reels and creates textures with rhythm, occasionally alternating bars with different numbers of beats. In the track *Shputnik in Glenshiel* on his *Bothy Culture* album Martyn first presents a conventional slide (12/8) as the melody line.[113] Later in the track the notes of this melodic theme are transferred to a slip-reel (12/8 with three groups of four quavers), necessitating the addition of extra beats to make the tune fit a four-based metre rather than the three-based metre of the original. This device is not unknown within traditional music. In former years it was used in Shetland fiddle music to keep an old tune in the repertoire when the dance style it has been used for became obsolete. Popular tunes were altered to fit the rhythms of incoming dance styles. Bennett highlights this rhythmic device by juxtaposing the two different versions in the same track. Variation is thereby generated without the need to introduce new thematic material.

The conflict presented by the meeting of different cultures is key to Bennett's thinking and musical practice. He faces the dilemma of satisfying his own interests as a musician performer, composer and tradition bearer. His aim is to explore and develop traditional

---

[113] Track 13 on CD

music in a contemporary setting and make his experiments accessible to audiences. Like many traditional musicians Bennett is bi-musical with insights into several musical genres. He is first and foremost a traditional musician in the old sense, having learned to pipe by ear from an older piper and learning to dance from a neighbour before receiving any formal classical training. Having both an academic training and lived experience of the oral tradition he can speak with authority and clarity on the subject of traditional music and cross-cultural ventures.

The sets of criteria by which innovation is assessed vary considerably depending on where you stand in relation to different musical cultures. Misrepresenting a musical culture through a lack of knowledge of its practices can apply to musical crossovers or collaborations. In Martyn Bennett's experience, practitioners within the club culture community either did not like his music or believed he was making fun of a serious genre.[114] He believed his attempts to be taken seriously as a composer integrating two musical genres failed for a variety of reasons. By attempting to give dance music a different edge with 'folk' music, which still has an 'uncool' image attached, he failed on two counts - to expand the general view of folk music and to bring two similar 'hard-edged' elements together. He attempted to impose an element of crossover into the contemporary dance-club genre where that concept does not exist. His conclusion was that he did not have the musical knowledge necessary to make an acceptable interpretation of the genre in the eyes of its exponents. He also felt he did not have the experience to know to what extent, if any, a true integration between folk and this type of dance music would have been possible.

Talking to Martyn the impression was that traditionalists (i.e. the traditional music press, revivalists, enthusiasts for the old traditions) found his work difficult to relate to.[115] He seemed to be trying to make a statement both to young audiences in general and traditional musicians in particular. Bennett's dichotomy was, to come full circle, that the two cultures he is working within - the very urban, contemporary one, and the traditional one with its rural and ancient connotations - were at such extreme polarity with one another that it was difficult not to get trapped in the middle, making no impression at either end of the scale.

[114]Irwin, Colin: 'Folk Dancer's Choice' in *Froots Magazine* #213 (London; Southern Rag, March 2001) pp21-27
[115] Martyn Bennett: from a telephone interview with the author, 10.11.99

I want to take audiences out of the city, not take the music to the city because that will just eat it up - I don't want to help that process. I want to fight against it.[116]

Martyn Bennett, 1997

Ornamentation and Accompaniment

In traditional instrumental music the function of ornamentation is firmly rooted in its structure. It is not purely decorative because ornamentation is tied up with elements of rhythm and melody that are connected with the structure of the music in a functional way, in the same way that the structure of some western classical music is bound to a system of functional harmony. For instance, it is frequently difficult to say whether a particular rhythmic feature is an ornament or a fundamental part of the tune.

Ornamentation is generally divided into three types - melismatic, like the roll, rhythmic (the snap, triple or birr) and intervallic (taorulath). Where these various ornaments are positioned in a piece is crucial to maintaining the idiomatic features of the music. One function of ornamentation is to provide interest through variation in timbre. Every note of the highland pipes has its own particular timbral quality –some have an open sound, for instance, some a stopped sound. In uilleann pipe music, as Tomás Ó Canainn points out, ornamentation developed 'as a way of articulating the getting of one note to another in a more 'interesting' way on an instrument on which it is hard to stop the sound'.[117] Sliding and pitch variation are considered important skills when playing an instrument on which the sound is continuous.

The ornamentation of one instrument is often reflected in those of other instruments whose repertoire is closely related. For instance, bagpipe ornamentation is frequently mimicked in fiddle playing. Guitarist Tony McManus learns a tune, including the placing of ornaments, before he begins to devise an accompaniment for them. Knowing the shape of the melody in various positions on the fingerboard helps to give an idea of the kind of accompaniment to make. Synchronising ornamentation with the melody player is important to give the tune clarity.

New ornaments are constantly evolving, while others go out of use. In a talk on traditional fiddle playing, Chicago fiddler Liz Carroll ran through a catalogue of commonly used

---

[116] Martyn Bennett cited in 'From Newfoundland to Bothy Culture' by Phil Udell; *Rock 'n 'Reel*, ed. Sean McGhee (Cumbria, England; #30, Spring 1998) p13
[117] Ó Canainn, Tomás: *Traditional Music in Ireland* p85

64

ornaments.[118] One she picked out as a recent development in contemporary arrangement was the *stop*. This ornament is easy to ignore as, as its name implies all one need do in order to execute it is to stop playing for a moment. However, its positioning and execution requires a fair amount of prior knowledge of the genre. *Stops* are non-sounded beats strategically placed within the rhythmic framework of a tune. The stop is not a silence in the normal sense of the word because it is accented or stressed. However, it has come to be a standard feature of many arrangements. A good example occurs in Lúnasa's arrangement of *Rosie's Reel* in the transition from the A section to the B section (see example 14). The use of this device on one level alters the temporal structure as a whole.[119]

Example 14

Contemporary Arrangement in Practice: Some Conclusions

When melodic material is performed without accompaniment the interest lies in variations and ornamentation executed by the players, but these variations must conform to certain generic rules. In accompaniment harmonic and rhythmic possibilities tend to be dictated by the shape of the melodic material, and again, so long as certain conventions are acknowledged there is scope for experimentation by accompanists. The main attributes of rhythm i.e. metre, articulation, accenting, tempo and so on, and the interplay between them, are utilised by traditional performers to create variation in arrangements that are in keeping with the melodic material. Similarly, when a drone, the double tonic or older tuning systems are present informed consideration is given to the use of harmonisation. In this way, players use their skill to play off structural components of the musical whole against non-structural variants along with ornamentation.

Certain rhythmic devices in accompaniment are becoming widespread in arrangements. Accenting in accompanying figures generally is important in providing variation in the

---

[118] Liz Carroll: Fiddle masterclass (Edinburgh; *Fiddle 2001*Festival, 24.11.01)
[119] CD track 14

rhythm, and the use of the hemiola as a feature in the rhythmic accompaniment could now be considered idiomatic of the style. With variation in the accompaniment complexity, richness and diversity can developed from one set to the next. In other words, prototypic melodic forms generally remain stable while rules of accompaniment contain the variable parameters.

The parameters that are variable in arrangement are tempo, harmonic accompaniment, rhythmic variation and stresses in the accompaniment and the specific arrangement of a selection of tunes to create a set.

The aspects of the music that tend not to be variable in arrangement are the AA BB (CC) form of most tunes (including newly composed ones), regular phrase lengths and repetition of turnings. The structure of sets is maintained (the placing of one tune after another and the repetition of each tune), as is a regular pulse, despite the increase in concert-style performances. The traditional keys for the tunes continue to predominate. Above all, the melodic element continues to be central. Apart from short introductions and the occasional bridging passage in more complex band arrangements, a tune is to be heard at all times. Most material would stand up in its own right if the accompaniment were removed. Within tune-playing itself, fashions continue to come and go with developments in new forms of ornamentation such as the stop, for example.

Solo or unison playing continues to play a big part for many traditional players. However, in a performance setting, accompaniment is increasingly used, and the devices employed in the accompaniment of traditional music are many and varied, as has been seen. They can be fixed in arrangement or spontaneous, simple or complex, and it is clear that musical practices are subject to change to a greater or lesser degree depending on cultural values reinforced within each genre. By contrasting dance music as performed on commercial recordings, in competitive pipe bands, at sessions, ceilidhs or dance gigs it is apparent that methods of accompaniment are dictated to a certain degree by the context.

In Scottish pipe band music, for example, values associated with competitive interaction exist that are not evident in ceilidh bands although much of the repertoire is shared by dance music. In competition playing the music is arranged to show off the skills of the band. Devices used in arrangement that are unique to this music are introductory drum fanfares, which are often in a different metre to the tunes that follow. The tunes themselves

are often slowed down and changed more frequently than in dance music. The drum beatings play a prominent role in the arrangements and are more ornate than percussive accompaniments in ceilidh bands, say. Because the band consists only of pipers and drummers harmony is rarely used, though part playing is becoming more popular.

At sessions (as opposed to playing for live dancers) the style of accompaniment depends on which instrumentalists are present. There may be guitar, accordion or bouzouki players of various abilities adding chord-based accompaniments. There may also be some bodhrán or bones players present. Arrangements can be planned beforehand, but there is always the possibility that other players may join in with different chords. As a result, in the context of a session the melody-led format calls for simple accompaniments with more conventional harmonic structures. This allows accompanists to participate without too many clashing harmonies.

At ceilidhs where formal dancing takes place it is necessary for the musicians to stick to standard tempos and forms (e.g. 32-bar jigs) that fit with the dances without too much rhythmic ambiguity that may confuse the dancers. Aside from this, as in more informal dance situations, there is a certain degree of leeway for live dance bands when it comes to arrangement. Because the line up of a band is relatively stable in these ensembles players have the opportunity to work together to synchronise melodic, harmonic and rhythmic ideas.

The process of arrangement in dance bands is generally a democratic one. Contrasting sections can be planned, perhaps by varying the instrumentation e.g. a whistle joining or replacing the fiddle for the second tune. Each accompanying instrument may have several functions. A bouzouki or guitar can provide textural variation as well as melodic, rhythmic and harmonic support. As in session playing the exact repertoire to be played may not be fixed beforehand as most melody players have a large repertoire of memorised material on which they can draw. More experienced players can decide during a set which tune they will play next, for example. On the dance floor of a contemporary dance event where it is not necessary to know set dances, and the musical material chosen for this type of performance reflects this to a certain degree. Jigs and reels tend to be chosen in preference to polkas or hornpipes and tend to be played faster than they would at a ceilidh.

However, fixing an arrangement is not always easy in a genre that has change, variation and spontaneity built into it. One of the most common questions experienced whilst working on arrangements is 'how are you counting that?' It is not that technical language is not shared between rhythm and melody players, but theoretical concepts of temporal structure in relation to dance music differ. Individual musicians feel rhythmic elements of music in different ways depending on their experience and role within a group. Because standards in transmission differ from one method to another it is inevitable that musicians with diverse musical experiences will conceptualise certain musical features in different ways. Internalised concepts specific to one instrument or genre of musical experience may be difficult to express to others whose practical experience and theoretical backgrounds are fundamentally at variance with their own.

Ultimately, in ensemble playing the intention is for all participants to be able to perform the material live and from memory, incorporating a shared system of verbal or visual cues to allow for spontaneity. How this state is arrived at varies depending on the experiences of each individual, but with live participation at its root.

In commercial studio recordings (as opposed to live recordings) players have the opportunity to try out new ideas for arrangement and to be more experimental in terms of musical structure and production. Members of Irish band Lúnasa have been fairly adventurous in their treatment of traditional material playing with rhythmic ideas, unusual instrumentation (e.g. clarinets) and using studio techniques to create a distinctive 'produced' sound on their recordings characterised by a rich guitar sound and wide stereo spread. In recent years some traditional bands that have recorded studio albums have unashamedly made use of studio techniques. Scottish band Shooglenifty, along with producer Jim Sutherland (himself an accomplished mandolin player and writer of tunes) made some unconventional decisions in their arrangements of traditional material on the studio albums they collaborated on.[120] Whilst maintaining the integrity of the traditional material, studio techniques were employed to create a band aesthetic that gave these albums a unique identity. In his arrangements of traditional material Martyn Bennett tried to place his music in the urban Scottish club scenes of garage, breakbeat, trip-hop and drum'n'bass, most notably with his album *Hardland* (1999) on which he collaborated with Martin Low.[121] This was an attempt to take the music to the heart of the youth culture of

---

[120] *A Whisky Kiss* (1996), *Venus in Tweeds* (1994) & *Solar Shears* (2000)
[121]*Hardland*: (CUILCD01, 1999)

the time, much as the folk-rock exponents of the 1970s tried to bring traditional music to a wider audience at rock venues. He used sampling and looping, devices common in contemporary club 'dance' music genres. Bennett's approach to sampling is to make reference to the world of traditional culture, such as different tuning systems, the bardic traditions (through the poetry of Sorely MacLean and Hamish Henderson, for example), the piping tradition, and Gaelic culture in general.

The most innovative and controversial decisions concerning arrangement are often made within recording projects. Changes in the practices of traditional music, often to do with how material is arranged, have on occasion been viewed in a negative light. For example, when musicians began using amplification there was outcry from certain 'folk purists' claiming the desecration of an acoustic musical tradition. When musicians began juxtaposing traditional music from their locality with other 'world' musics, the negative effects of globalisation and loss of regional identity were expressed by scholars and practitioners alike. However, despite cross-genre experiments, underlying musical practices and their transmission often continue unchanged. Variations employed in arrangements tend to be done in such a way that whilst ensuring new material and ideas are perceived, known prototypes are still recognised by listeners.

Musicians at a grass roots level have taken more control over perceived notions of traditional music in the public domain as well as developing a growing awareness of the effects that external influences can have on traditional musical practices. This is motivating attempts to develop styles of arrangement that better suit the characteristics of a melody-based system. A reliance on functional harmony in arrangements by 'art' music composers often obscured many important features of the melody. Large ensembles, notation, major and minor scales, chromaticism, transposition, modulation and functional harmony as used in classical music are features that are difficult to integrate with traditional music. Although ideas borrowed from classical music are used, the methods used by the contemporary ensembles looked at in this study reinforce the connection between melody and accompaniment, both rhythmically and harmonically. Idiomatic features of traditional music such as the use of the drone, the double tonic, certain scale systems, generic forms of ornamentation, unison playing and oral transmission are given due consideration when it comes to arrangement.

3 The Changing Face of the Transmission & Reception of Traditional Music

Transmission in the context of traditional music is the movement of a body of knowledge or information from one point to another as a process. It is a transfer of information, the stage between generation and interpretation that incorporates elements of both the sending and receiving of information. In other words, it is a dynamic process with many facets. This chapter outlines the variety of mediums for transmission and reception of traditional music, both historically and in contemporary contexts, in order to establish a basis from which the shift to an online environment can be examined in more detail.

The connection between the music and the dance is an important one, and where transmission is concerned the historical links between the two must be made clear. It could be argued that today the music has shifted away from the dance to a great extent as the older settings in which dances occurred no longer exist. However, there is still a strong link, especially in Ireland where the revival of step dancing has taken place, and the repertoire of dance tunes played in pubs and on the concert stage is very closely related to that used for accompanying dance events. The dances practised today are reels, jigs, slip jigs and hornpipes, the same dance forms that are played by session musicians and concert performers all over Ireland and Scotland. In Scotland the Strathspey also retains its prominent position in the repertoire for instrumentalists. With an upsurge in dance competitions and organised ceilidh-style events it seems that the links between dance and music are fairly secure at this moment in time.

In some senses instrumentalists have the popularity of dance in previous centuries to thank for sustaining a repertoire of music through some difficult times. In C17th Scotland the repressive attitude of the church led to the targeting of dances as a subversive influence. As fiddles were the main instruments involved at that time, many were ordered to be destroyed on public bonfires. However, the lower and upper classes managed to get away with continuing their dancing to a certain degree. Although this situation carried on into the C18th, it was soon eclipsed by the emergence of dancing masters in both Scotland and Ireland who began to set up in business as soon as the religious repression ended, promoted mainly by the upper classes of society. It was at this time that the strathspey first appeared.

The dancing masters were peripatetic musicians who both taught and played for dances in rural locations and sometimes at society balls. They would travel from one village to another, usually within a fixed region. Competition was rife between the different villages, and even between the dancing masters. At this time books of printed dance tunes began to appear, and many of the dancing masters also composed new material. Most dancing masters were fiddlers or played the kit (a narrower version of a fiddle), making it possible to demonstrate the dance steps whilst playing. Often these dancing masters were hugely successful in their careers. James Oswald, for example, did so well that he went on to have a career as a composer and publisher in London. One of the most well known dancing master was Ayrshire fiddler David Strange.[122] Others latched on to the commercial opportunities that dance events offered and a wealth of new material was written at that time, much of Neil Gow's output being a notable example. The tradition of dancing masters continued well into the C20th. A recording of John 'Dancie' Reid, one of the most famous and hardworking dancing masters in Scotland until WW2, was made in the 1930s.[123]

Because dancing enjoyed such popularity, the dissemination of the repertoire, some of which went back a long way, was widespread throughout this period as dancing masters travelled about Scotland and Ireland. With the advent of printing and the commercial opportunities available to musicians who composed we have inherited from the dancing-master tradition a wealth of material dating from the early C20th right back to the C17th and possibly further, in both oral and notated forms.

Oral transmission is still the most common way of disseminating traditional musical material. Traditional music has been transmitted orally for centuries, but over the last three hundred years the methods of oral learning have diversified. There were some instrument-specific methods of notation that pre-date staff notation to support oral learning for harp and bagpipes for example, dating back to the C16th. These will be looked at in more detail later in this chapter. Traditional musicians were introduced to the concept of staff-based musical notation in the C18th and there has been a gradual increase in musical literacy ever since. It will become apparent how swiftly musicians have picked up practices such as musical literacy and the use of recorded media, adapting these technologies to suit their needs in the context of an existing oral culture.

---

[122] Alburger, Mary Anne: *Scottish Fiddlers and their Music* (London; Hardie Press, 1996) pp 61-62
[123] Cooke, Peter: sleeve notes on *The Fiddler And his Art* (London; Tangent Records 19788)

71

This study is an investigation into the ways in which the music is transferred and received in a contemporary climate. As methods of transmission have expanded, so have the states for receiving the information been altered. It will become apparent how information relating to repertoire, technique, protocol and style are received in different ways depending on the context. In certain learning environments emphasis is put on different aspects of the music, depending on whether the learner is in a taught environment or is gaining knowledge in an autodidactic way. Similarly, a practitioner who uses the internet may receive their information in a different format to one who prefers collecting material live from those around them.

At this point in time it is still possible to talk to older musicians who learned in the same way as their forefathers generations ago. At the same time the transmission of material over the internet by means of the new **abc** format (a method of writing and listening back to music using text symbols[124]) indicates a culture that is not afraid to appropriate new technologies. These two extremes are not mutually exclusive and many musicians from the traditional music community will use several methods for receiving and transmitting material from the ancient to the new.

The following sections describe the various forms of transmission and reception, from those that function orally or through absorption to the use of notation and instruction. However, it must be stressed that often several methods of transmission are used simultaneously, especially where instruction is involved. Teachers may use notation to support oral learning, for example, and those who use the internet to glean new material may also receive knowledge orally from the old man at their local session.

Oral Transmission

I shall begin by discussing the methods of oral transmission; learning through exposure, by means of specific teaching practices and from recorded material. The use of the word *learning* in this context is primarily to do with the internalisation and reproduction of a musical repertoire, in this case the tunes. It is to a lesser extent a theoretical process or an

---

[124] The topic of the **abc** language will be discussed in detail later in this chapter.

exercise in the development of technical skills on an instrument, as noted by Katherine Campbell during her research into learning Scots fiddle.[125]

In the case of music transmitted orally, it has been subdivided into autodidactic methods (learning through exposure) and pedagogic methods (learning through teaching). This distinction has been made to highlight the differences between informal active reception and a more formal oral education that is associated with instruction. However, it is often difficult to distinguish knowledge received through exposure from that which is gained through instruction. Often different people will learn more easily by one method complemented by another depending on their individual experience and abilities.

Learning through exposure (aural transmission)

In the mythology of the Shetland Isles some traditional players had musical material passed on to them by the fairies.[126] Old tales tell of musicians captured by the fairies (or trows as they are known) to play at all-night parties. Whilst in their company they heard unknown tunes being played. When they were re-entered their own world they remembered this new material. These events were often associated with fluctuations in the passage of time. In some cases, no time would have elapsed while the musician was under the spell. On other occasions he would have returned to the world to find that many years had passed. In the Shetlands, tales of the links between musicians and trows were common, and the music of some players had magical qualities attributed to them, such as the ability to heal, because of their connection with the fairies.

I believe these tales, and similar ones from the Western Isles and Ireland, have links to the most ancient form of gaining knowledge - learning through exposure. In this form of learning, the mechanics of the process were invisible, so an explanation was invented. Myths were constructed to enable people to put themselves in the shoes of a person experiencing something they had not experienced themselves or to explain something they did not understand. In this way they were better able to devise strategies for dealing with new experiences, or to imagine how another person may have approached a problem. The

---

[125] Campbell, Katherine: *Learning to Play Scots Fiddle: an Adult Learning Perspective* (University of Edinburgh, 1999) p63
[126] Hear 'The Fairy Reel' on *Scottish Tradition volume 4; Shetland Fiddle Music*, as played by Bobby Peterson (Tangent Records; Recorded and documented by the School of Scottish Studies, Edinburgh University, *1973*) or see the jig *Aith Rant* in James Hunter's *The Fiddle Music of Scotland* (Chambers Ltd, 1979)

73

symbolic association with time can be related to the way in which musical material absorbed through exposure can suddenly emerge from a player who has displayed no visible sign of having learned it. Scottish musician Dougie MacLean described this process as being similar to learning skills such as scything.

> It's one of them things you can't just learn immediately like that... It's like a lot of the old kind of skills and trades like the old woodworking skills and old stonemason trades. There's almost a magical element to the knowledge that you can't actually even be taught, and the only way that you'll learn it is by being in the company [of one] who's a master, and somehow magically the knowledge gets transferred.[127]

Today, probably more than ever before, the value given to oral learning underestimates the complex processes that make it one of the most fascinating facets of human existence. This is mainly due to our reliance on material proof of knowledge and a pressure to learn things quickly. Trusting one's cultural heritage to a group of living beings who store the whole community's repertoire in their memories requires great faith. Trusting our own experiences and memories is constantly undermined in western culture. However, at one time it was the only way of continuing cultural practices. A remnant of this facility still exists in the practice of traditional music in Scotland and Ireland where a real and vast repertoire exists in the memories of living exponents of the genre, despite a plethora of recorded or notated representations of the same material.

In its most fundamental form, learning orally requires a transmitter and a receiver - a person or people to impart the information and another or others to receive it in a live context. This way of passing on and picking up information should really be called *aural transmission* as no verbal interaction need take place. It is autodidactic learning in its purest form. In past times, exposure would have involved being present at public events such as weddings and ceilidhs or at sessions around the hearth at home. Generally, a musician will come to traditional music of his or her own accord, but it is still true that a child consistently exposed to the music in his or her immediate surroundings is more likely to learn the repertoire that will provide a head start when it comes to learning an instrument. In the past it was by this method that the music was continued down the generations - not because parents taught their children formally but because the music permeated the children's everyday lives.

---

[127] Dougie Maclean in his introduction to 'Scythe Song' (track 2) on his live album *Dougie Maclean Live From the Ends of the Earth* (Dunkeld Records, 2000)

A subscriber to the **Scotsmusic** website gives a good description of the process:

> A popular or favoured tune becomes familiar to the ear through regular exposure. Once there it is accessible and relatively easy to retrieve. Through a process of regularly accessing the memory, repeating and practicing performing the tune, it becomes so familiar it is part of the musician's nature to the extent that . . . hearing even a fraction of the tune will enable recall of the whole piece.[128]

Often one remembers a tune only because one has heard it so many times before, perhaps both live and on recordings. In these cases one cannot ascribe a particular time or location to the point at which it was learned, but only that it occurred over the period of time that one was exposed to it. Advice is only given if requested by the learner and feedback comes from the receivers themselves through a process of trial and error while comparing one's achievements with other's.

This way of learning is quite different from one to one or group tuition. Opportunities for public performance come only when players deem themselves ready. Some may attempt to join in at a session, find they cannot play fast enough and have to try again six months later when they can play at speed. In traditional music this way of learning applies as much to receiving the repertoire as it does to acquiring motor skills. In the case of the older musicians, many tunes were absorbed from a musical environment and memorised well before they ever held an instrument. Instrumental technique was picked up by watching and listening to others play live, followed by periods of imitation and experimentation in private.

Shetland fiddler Andrew Polson, for example, through lack of instruction first tuned his fiddle 'doh, me, soh, doh. . . I discovered myself, by ear, that it was wrong.' His fiddle repertoire was learned by memorising tunes from the singing of his mother and the playing of a relative.[129] Aonghas Grant, a fiddler in his seventies from Lochyside near Fort William in Scotland, has never had a lesson in his life, though he is extremely knowledgeable with a vast repertoire of tunes. He himself has become a teacher and has had many pupils, including his own son Angus who is fiddler with the band *Shooglenifty*.

---

[128] Daibhidh: in response to a question from the researcher at
http://home.btclick.com/scotsmusic/traditional.htm 9.4.00
[129] Andrew Polson of Yell, recorded as an old man in 1971 and cited in the notes accompanying *Scottish Tradition volume 4; Shetland Fiddle Music* (Tangent Records; Recorded and documented by the School of Scottish Studies, Edinburgh University, *1973*)

Aonghas points out that fiddlers who learned by absorbing material were not expected to replicate exactly what they heard.

> No two fiddlers would do the same things. Most fiddlers play a tune the way they like it, which may not be what was written [composed] originally. The tempo and phrasing varies from fiddler to fiddler. The good fiddlers like to show off by doing fancy bits that lesser players can't do. [130]

In other words, receiving music in this way does not restrict the practitioner to a rigid way of playing. Virtuosity is admired within the community and individual playing develops through imitating a number of players with different skills in order to improve technique.

It is interesting to compare people's perceptions of how they pick up musical material in this kind of environment. Carleen Anglim, an *All Ireland* fiddle champion, claims she can pick up a tune at full speed at a session after three or four repetitions.[131] Aonghas Grant also claims to be able to pick up a tune played at full speed in a short period of time. He finds it difficult to see how one can learn music by breaking a tune up into its component parts.

> Learning by ear, watching the fingering and bowing, the grace notes, you pick up everything at once.[132]

This information is surprising when it is known that teaching by 'chunk and link' (a method where the tune is broken down into its component parts) is common amongst traditional music teachers. It highlights an important difference between receiving information through exposure and through teaching. The way the knowledge is transmitted dictates the way in which that information is received. Aonghas Grant's concept of learning is to see the process as a whole, and he believes that the more the skill of memorisation is practised, the easier it becomes, with prototypic structures and a fairly substantial repertoire of the music internalised before any attempt is made to play it.

Aonghas's view is supported by various pieces of research that have been done into how musical material is memorised. Elizabeth West Marvin, found that primarily it is the over

---

[130] Aonghas Grant in conversation with the author, 3.4.00
[131] Carleen Anglim in conversation with the author 6.4.00
[132] Aonghas Grant in conversation with the author 3.4.00

all contour of the melody that is recognised.[133] With a pre-set model of tune types to go by, the contour of the tune can be 'hung' on this frame, as West puts it. Brian Moore, whose field of expertise is the psychology of sound, claims studies show that remembering the timing is the first stage in learning a musical pattern. Rhythm is organised in the mind by picking up features that mark certain points that shape the temporal pattern.[134] Remembering variations in pitch follows later. It has been suggested that formulae or themes of musical form exist in the minds of musicians who are in the habit of improvising or have a memorised repertoire. Jeff Pressing's discussion of this idea was in the context of improvisation skills amongst jazz musicians, but it could equally be applied to traditional musicians who have internalised prototypes for the various forms of music.[135] Although these theories vary they do provide some insight into how people recognise and remember melodic patterns. What is common to all is that memorisation can only occur when the melody in question conforms to a familiar formula within the culture of the musicians in question, and where certain types of pattern are favoured over others.

The concept of internalised formulae could go some way towards explaining the ease by which some traditional players are able to memorise tunes played at full speed almost instantaneously. To return to Aonghas Grant's statement that one picks up 'everything at once', I would say that it is almost impossible to ascertain which aspect of the tune is picked up first. It may also vary from one individual to another. In my own experience as a player who uses this method of learning more than any other I would say that it is impossible to separate variations in pitch from the rhythmic elements on first hearing a tune, as the shape of a melody is defined by both pitch and rhythm. In order to explain the process of receiving a tune live from another player at a session in more detail I am now going to describe the experience from my own perspective as an insider researcher. In most cases I will have already heard the tune in question in one context or another before making any attempt to play it.

In the first stage of the process I will note the tune type, a jig or a reel, say. Simultaneous to this is the establishment of the mode or key. Once established, this reduces the pitch set and temporal aspects of the tune to a specific set of parameters. The next stage is to fill in

---

[133] Marvin, Elizabeth West: 'Tonal/Atonal: Cognitive strategies for Recognising Transposed Melodies' in *Music Theory in Concept & Practice;* Eds. James Baker, David Beach & Jonathan Bernard (NY; University of Rochester Press, 1997) pp 217, 236
[134] Moore, Brian C; *Introduction to the Psychology of Hearing* (London; The MacMillan Press Ltd., 1977) p162
[135] Pressing, Jeff: Improvisation: 'Methods and Models' in *Generative Processes in Music: The Psychology of Performance, Improvisation and Composition;* Ed. John A. Sloboda (Oxford; Clarendon Press, 1988) p146

77

the details of the tune itself. Each tune has its own special characteristics, but much of the tune may be made up with idiomatic phrases that are easy to pick up quickly. During this phase I will be trying to play along, feeling my way into the tune. It is important to note where the tune moves up and down in pitch and points at which any unusual variations in rhythm occur as soon as possible. Once this has been achieved I should have a fairly good idea of the melodic and rhythmic shape of the tune. Finally, the details of ornamentation come into play, and at this point I will use my prior knowledge of where to place them and which type to use based on my own preferences combined with standard conventions. By this time, the tune may have been played two or three times, and hopefully I would have worked it out well enough to remember it once I got home.

This whole learning process has to take place roughly within a couple of minutes, as a fast reel with two parts only lasts about 30 seconds. No concessions are made for those who are a bit slow in this respect, and it is necessary to really know your instrument technically in order to achieve this, which raises another issue. Trying to learn repertoire in this way whilst simultaneously learning one's way around an instrument is extremely difficult. When learning through exposure it is almost as though the two things are kept completely separate. Often in a teaching environment the repertoire is taught at the same time as the technical skills involved in learning an instrument.

An important aid to remembering a tune is its title. This is in order to distinguish it from other similar tune types and really helps when it comes to mentally categorising tunes. At the time of learning I also make a mental note of the tune type and key, and perhaps a key phrase that is distinctive, especially at the start of each turning. Once alone, I attempt to trigger the whole tune by combining the points that I have remembered. Often remembering the situation I was in when I heard it - the location, the time of day, who was playing the tune, who was backing it etc., also helps. Another important factor is muscle memory. One interesting phenomenon that has been mentioned on many occasions by traditional players is that often the muscles can 'remember' a melody when the player is not consciously aware of it. An uilleann piper once described to me a situation where his conscious mind was panicking about not being able to remember the second part of a tune during a performance. However, when the tune reached the point in question his hands automatically carried on with the next part correctly. He only remembered the melody as he played it.

Another important part of the process of memorising a tune is to get it into the long-term memory and keep it there for future reference. Once a tune is memorised it must be repeatedly reinforced at an early stage in order not to forget it again. The chances of forgetting a tune increase the longer the period of time that elapses since initially learning it, so it has to be kept in one's regularly played repertoire for some time before it can give way to others, safe in the knowledge that it has an established place in the bank of knowledge that is the internalised repertoire.

From the description of my learning process above, it is apparent that a receiver requires a certain set of skills and prior knowledge in order to interpret the information correctly. This set of skills varies considerably from those associated with memorising a piece of music from notation, as we shall see later in this chapter.

Asked what advantages learning by ear has over learning from the printed page, Grant says:

> You can't beat seeing it done . . . You are seeing the way the fiddler plays - bows, fingering and gracing.[136]

Oral learning from sound recordings

A similar process for learning tunes can be applied to learning from sound recordings. The difference between learning a tune directly from a recording is that there are no visual cues, and one has a fixed version of it as opposed to a number of slight variations that one would get from sessions or other live performances. Usually when players learn a tune from a specific recording they will acknowledge it by saying 'I got this version of *The Gold Ring* from John Carty's recording', for example. Commercial recordings were available from as early as the end of the C19th. Scots fiddler James Scott Skinner made his first recording on cylinder in 1899 and continued making commercial recordings for several decades.[137] Meanwhile, in North America there was a ready market within the Irish community for recordings of traditional players from back home. The best known of these exponents was Sligo fiddler Michael Coleman. Several of his 78 r.p.m. records were released between 1921 and 1936 to be eagerly received in New York, Boston and Chicago.

---

[136] Aonghas Grant in conversation with the author 3.4.00
[137] A selection of these were released by Topic in 1970 under the title *Original Recordings of the Great Scottish Fiddle Maestro.*

79

The recorded collection, whether it is commercial or not, has a specific function for traditional players. Unlike a collection in a tune book, which would generally only appeal to musicians, a recording functions as a commodity for musicians and non-musicians alike. An individual with no practical interest in music may be able to enjoy the contents of a recording for its artistic merit alone. However, a traditional musician, as a potential receiver, will often view the contents of an album as a treasure trove of new material to learn. This differentiation is important when considering the relationship between traditional musical practices and the recording industry. The reception of Michael Coleman's records, for example, was not simply an opportunity to listen to music from back home. It led to a renewed vigour in the practice of traditional Irish music, and there remains to this day a thriving Irish music scene in New York, Boston and Chicago.

It is useful at this point to take a brief look at the history of recording traditional material. Traditional music was a focus for the early pioneers in recorded sound. The preoccupation with preserving 'folk' music at the end of the C19th and early years of the C20th by such characters as Vaughan Williams, Marjorie Kennedy Fraser, Lucy Broadwood and Cecil Sharpe led to the establishment of archives of recorded material. Since then many archival recordings have been made in both Scotland and Ireland, too numerous to mention here.

To look at this from the practitioner's perspective it is apparent that from before the time of the second folk music revival at the end of the 1950s musicians had a ready store of source material at their disposal. Having access to recordings was a useful means of finding older tunes that could be re-introduced to the repertoire or to find alternative versions of tunes, as well as a way of examining the techniques associated with older styles of playing.

As a fledgling music industry was about to take off in Britain and Ireland in the 1970s, new recordings of traditional material by young groups exposed audiences amongst the record playing and radio listening public to traditional music. The concept of bands as potentially commercial ventures meant that the release of a new album was generally followed by a tour at which these albums could be sold. This applied as much to those in the world of traditional music as it did to blues, rock and jazz acts. Getting recorded material to the public meant the setting up of new distribution companies to ensure that the music of recording artists got into the shops.

All this amounted to wider access and a greater range of material available to the general public. As a result, a new generation of traditional players emerged, and at the same time a new way of transmitting musical material orally that broke down regional and national barriers opened up. Around this time, in more urban areas a setting was established for the promotion of live music in the 'informal' context of folk clubs. It was at this point that learning material from recorded sources for the purpose of live performance took off. During the 1960s and '70s, what was termed 'folk' music was very much influenced by the American ideals of the protest movement. The concept of a music that anyone could pick up and play, whether or not they had received a formal musical training, appealed to a great many people.

In the 1970s cassette tapes became very popular with traditional musicians for learning tunes because of their convenient recording format and size. This technology made it possible to record performances from the many radio programmes that played traditional music in Scotland and Ireland. In the 1960s a Gaelic service was established by the BBC in Scotland, and in Ireland Ciaran MacMathuna's weekly radio programmes had become essential listening for those interested in traditional Irish music, as had Sean O Riada's *Ceoltoiri*, and uilleann piper, collector and broadcaster Seamus Ennis's *As I Roved Out*. Radio and television programming in both Ireland and Scotland continue to the present day to promote traditional music. The Gaelic television service in Scotland frequently includes performances of traditional music, as does BBC radio Scotland.

The invention of the cassette recorder also meant it was possible for the first time for ordinary people to cheaply record new compositions on the spot at home, or make a note of versions of tunes or the repertoires of certain players that were not heard in the media or available on commercial recordings. Aonghas Grant regrets not having access to such equipment at an earlier stage in his life.

> The tape recorder has been a boon to traditional players. If I feel a tune coming out of the blue I tape it right away and get a pupil or friend to write it down. In this way I have composed around thirty tunes. It is a pity there were no recorders sixty years ago to get some of the old players and their tunes - many now lost.[138]

The process of memorisation is similar to that mentioned above. However, because of playback manipulation it is possible to get more detail of individual performances. It can also make the process easier for musicians who need to hear things repeated more often to

---

[138] Aonghas Grant in conversation with the author 3.4.00

learn new material. Many players have their own way of facilitating the process. Carleen Anglim described how her mother, a traditional flute player, used to help her learn tunes as a child with the aid of a record player;

> She used to slow records right down so I could get all the tricky bits in a tune, and I would de-tune the fiddle and play along until I got everything.[139]

Today some CD players and minidisc recorders have a 'looping' facility that makes it even easier to learn a tune directly or transcribe material, and I favour this method myself. Recording at sessions is another way of accessing tunes one cannot remember, but is sometimes frowned upon, especially if permission has not been granted by those present.

Learning material from sound recordings has the drawback that one cannot see what the player is doing. Details of ornamentation and articulation are sometimes difficult to pick up as a result. I have also on occasion learned a tune in a difficult key only to realise later that the fiddle on the recording had been tuned up a semitone. Video recordings of live performances can be very useful for picking up certain stylistic aspects of the music, but are not as readily available as sound recordings.

Receiving information from recordings is similar in many respects to absorbing music through exposure. However, it implies a more active selection process as the receiver must seek out recordings or different versions of tunes they wish to learn, or make their own recordings. In terms of dissemination this has led to a broader pool of material from which players can choose, rather than what is available in the locality or in tune books.

The whole process also becomes more dynamic as a wider stylistic range of material from different regions is available. It could also be argued that learning from a variety of recordings means the playing styles of individuals are more likely to contain a variety of different techniques gleaned from a wide selection of players, with less emphasis on developing a personal style or adhering to that of their own region. Learning from recordings may also encourage a situation where players replicate decisions relating to interpretation made by those on the recordings. For example, a 'definitive version' of a particular set of tunes may become forever associated with one another because a certain group arranged them in that particular way.

---

[139] Carleen Anglim in conversation with the author 6.4.00

It is a commonly held view that learning by ear should ideally be supported by direct contact with an expert. As James Hunter says 'while there are many things one can pick up just by listening, there are certain things – particularly in bowing – which can be assimilated only through the eye'.[140]

Oral transmission through instruction

This section examines the subject of reception where direct instruction takes place. This includes teaching, but first I would like to deal with a more informal type of instruction that takes place when fellow musicians of a similar standard get together to swap tunes.

It is quite common to increase one's repertoire by exchanging ideas and material with another player. The players need not necessarily play the same instrument as much of the repertoire is shared. As a fiddler I have learned tunes from pipers, flute and whistle players, bouzouki players, guitarists, mandolin players and banjoists, as well as other fiddlers. This type of interaction generally takes place at the home of one of the players or in a quiet corner of a festival site. A typical situation from my perspective would be that I meet a player at a session whose repertoire interests me for some reason. The player may be from my own region and know some tunes I do not have in my repertoire, or they may be from elsewhere and have some interesting tunes from their own locality. An agreement to meet up is made, and tunes are taught by ear and picked up directly in a one to one situation. Generally a fair amount of other information is passed on alongside the musical notes, such as the title and age of the tune, the name of the author, where and when the player learned the tune and from whom they received it. All of this helps to create a bigger picture of the piece in relation to the rest of the repertoire. This type of reception involves a huge amount of interaction and is usually extremely enjoyable. It is usually a two-way experience. Generally if someone teaches me a tune, I will teach them one in return. It helps to establish a bond between players who, more often than not, have never set eyes on one another and may not meet again. Common experience of the music and a shared set of cultural values make this type of interaction easy.

Reception in a more formal learning environment tends to be quite a different experience. One to one or group tuition by an individual teacher has become a common method for learning traditional music today. However, the idea of giving lessons has been around for

---

[140] Hunter, James: *The Fiddle Music of Scotland* (U.K.: Chambers Ltd, 1979) p xxxiv

several centuries. Despite the fact that much of the musical knowledge acquired by ordinary players was gleaned through exposure (through attendance at ceilidhs, traditional celebrations on Saint's days in Ireland and special events such as weddings), the teaching of traditional music did take place, and the piping traditions have a long history of learning from a master.

Some parallels with the current situation in Scotland can be drawn with the musical climate of the C18th, when the division between classical and traditional music was more blurred than it is today. At that time in Scotland aristocratic houses hired music tutors, and fiddle lessons often included the learning of traditional Scots tunes. It was during this period that music schools were established in Aberdeen and Edinburgh (the musical centres of the day) that made accessible the learning of both classical and traditional music to students from rich families and less wealthy backgrounds alike.[141] The establishment of these schools were partly prompted by a desire to increase a sense of national identity in Scotland.

It is interesting that at a time when a new Scottish parliament has been formed, similar notions of national identity arise in relation to the promotion of traditional culture today. In recent decades there has been an upsurge in traditional music classes and adult education groups that are supported by national funding bodies. Projects like the Glasgow Fiddle Workshop and the Adult Learning Project (ALP) in Edinburgh set out to promote the learning of traditional music with the emphasis firmly on learning by ear with exposure to a range of playing styles. Acknowledged experts in their fields (usually players with some success in the concert halls) are invited to teach, and regular sessions take place under the supervision of a pool of local players. An inclusive ethic serves to reinforce cultural identity at a grass roots level. Workshops I attended in Scotland included participants from a broad spectrum of social groups, on one occasion ranging from a solicitor on his lunch break, an unemployed labourer, two forestry workers and a fifteen-year -old schoolgirl from the local secondary school.

One of the aims of these teaching programmes is to promote the appreciation and development of individual style, bringing in a wide range of tutors to run sessions. According to Aonghas Grant (who teaches on courses including the BA in Traditional Music at the RSAMD, at workshops and to individual students), regional styles are still

---

[141] Johnson, David: *Music and Society in Lowland Scotland* p30

84

very much in evidence in Scotland.[142] The annual *Fiddle* gathering organised by ALP functions as a showcase for a diversity of individual players from all over Scotland and beyond. This raises awareness of the wealth of regional variations in style and emphasises the importance of individuality.

To go back a few decades in Scotland, fears that regional styles and repertoires might vanish or become diluted led to the instigation of various education schemes aimed at young people. The Shetland Isles in the 1970s and '80s saw an extensive teaching programme being fostered in schools that included lessons in traditional fiddling from players such as Tom Anderson. However, the teaching method used to transmit the material may have been a significant factor in the criticism that the scheme received from older fiddlers. According to Peter Cooke, these older fiddlers were concerned that regional styles would lose out as pupils learned the ways of an individual teacher, with little exposure to a wider range of players and their repertoires.[143] Although more children were encouraged to take up the fiddle, just as many gave it up as they grew older. However, the fact that the scheme existed at all kept Shetland fiddle music in the public eye when it was most under threat. As a result of the programme Shetland fiddle music continues to hold its place amongst the many other regional fiddle styles and produced some fine players, such as Catriona MacDonald.

For many ordinary people in Ireland, traditional music or dance classes have been a normal part of extra-curricular activity for some time. Additionally, in the last few decades there has been an increase in Ireland of summer schools and workshops. Possibly this increase has come about through the realisation that there was value to be had from exploiting traditional cultural practices in a world market within a thriving economy. Many of these summer schools are commercial enterprises, but are often backed by regional arts funding bodies whose aim is to promote local musical traditions and encourage playing within Ireland itself. One example is the Willie Clancy Summer School, established in 1973, the year of his death. Held in various venues in Miltown Malbay, County Clare in Eire, the programme includes taught sessions ranging from instrumental playing, sean-nós and dancing with a wide selection of tutors. Another similar event is the Joe Mooney Summer School held annually in the town of Drumshanbo, County Leitrim that offers instrumental

---

[142]Aonghas Grant in conversation with the author, 3.4.00
[143]Cooke, Peter: *The Fiddle Tradition of the Shetland Isles* (UK; Cambridge University Press, 1986) pp 128, 129

instruction in classes for banjo, button accordion, harp, bodhrán and uillean pipes, as well as singing and dancing. They often include a concert series and sessions that run alongside the teaching programme.

Learning from a teacher has the advantage of giving students the opportunity to receive information they may not otherwise gain simply by picking up tunes by ear. Technical information to do with bowing or ornamentation is easier to transmit in a situation where verbal interaction can take place on the spot. Generally at workshops or in individual lessons tunes are taught by ear using the 'chunk and link' method as mentioned earlier. The teacher breaks the tune up into short phrases, repeating each part until the class or individual has memorised it. Notation or recordings are frequently used to help the student remember the tunes, as well as making notes on any technical information.[144] Staff notation is the usual method, but students may also notate what they have learned in their own shorthand to remember the fingering, and in some of the ALP classes **abc** notation is also taught so that students can quickly make a note of tunes. I have also come across students who can read staff notation but choose not to use it at all in a learning situation because they wish to develop their aural skills.

It is also possible to obtain instructional videos by well-known traditional musicians. These products have been around for several decades and generally take the form of a lesson or series of lessons that give an indication of style and illustrate certain playing techniques. One example is John Doyle's *Irish Rhythm Guitar* covering strumming patterns, accents and syncopation[145]. As a more contemporary offshoot from these types of product, CD-ROMs are also available. These products vary considerably, and for the receiver it is often difficult to judge whether the level of playing that is going to be presented will match their own abilities. Some are aimed at more advanced players with a good deal of experience, and most expect a certain level of prior knowledge. With this type of product it is not possible to slow down the speed of delivery to a pace that suits all players. CD-ROMs may be more user-friendly than videos as it is possible to quickly repeat certain sections. The biggest drawback with receiving this type of material orally is that there is no feedback, though it does have the advantage of a visual element that is lacking in recordings.

---

[144] For more information on learning in this environment refer to Katherine Campbell's thesis *Learning to play Scots Fiddle: An Adult Learning Perspective* (University of Edinburgh, 1999)
[145] Released in January 1998

It is apparent that often a combination of oral and notated methods will be used both for transmitting material to learners and for the receivers themselves to remember or keep a record of information. I would like to go back a few centuries at this point to C16th Scotland when a language for oral transmission with an accompanying system of notation was devised. The oral version was devised specifically for passing on the repertoire to Scottish highland pipers and is named canntaireachd, the earliest accounts of which date back to that time. Said at one time to be a secret method of transmission, this was a system of vocables that were sung and used as a teaching aid. According to Francis Collinson, all pipers were taught in this way until relatively recently, certainly well into the C20th, and he cites Pipe-Major William Maclean who informed him that all his piobaireachd were taught to him by way of the MacCrimmon system of canntaireachd. [146]

The Role of Notation in Transmission and Reception

Although it was taught orally, canntaireachd also included a form of notation where the vocables were represented in a manner similar to the sol-fa system.[147] There were three versions originating with the different clans, the MacCrimmon being the most notable example for it is still in use today. Canntaireachd was not the only ancient form of notation. Ogam was a form of tablature dating from pre-Christian times in Ireland. This system had several purposes and could be interpreted in a variety of ways, but one of its key functions was to represent harp music. Like canntaireachd, several attempts have been made to interpret it, and the true meaning of many of the symbols in both these forms of notation continues to elude scholars.[148]

It seems that the notated version of canntaireachd was used for preserving the repertoire, while the oral version was used to teach the pipers. Most ordinary pipers would not have read the notated versions of piobaireachd during the normal course of their training. The use of staff notation for pipe music came in around the 1830s when Angus Mackay published the first book of piobaireachd[149] but it did not become popular in the piping academies until the latter part of the C20th century. Pipe-Major William Maclean stated that he never saw pipe music written in staff notation in all his years of learning. This must have been in the late 1950s or early 1960s.

---

[146] Collinson & Mackay: *The Bagpipe fiddle & Harp* (Newtongrange, Midlothian; Lang Syne Publishers Ltd, 1983) no page numbers
[147] Ibid.
[148] For more information on Ogam see *Ogam; The Poet's Secret* by Seán Ó Boyle (Dublin; Gilbert Dalton, 1980)
[149] Mackay, Angus: *A collection of Ancient Piobaireachd or Highland Pipe Music* (Edinburgh; 1838)

Staff notation has now superseded canntaireachd and has become a major teaching aid in the pipe band tradition with most Scottish pipers able to read. As mentioned previously, this modern staff notation is a version specific to that instrument, with all tunes being written in the key of A, with none, one, two or three sharps in the key signature. There are certain standard formats for notating the various types of gracings that occur in the different sections of the pieces. This form of notation is probably the most prescriptive of all notations used by traditional musicians, but is only used as a preliminary aid to learning a piece from memory. There are now many pipe tune books notated in this way (including those containing contemporary compositions) and tutor books.[150]

The reception of orally transmitted pipe music is therefore supported by a wealth of notated material that is very much a part of piping culture. Scottish piper Gordon Duncan included modern pipe notation for his own compositions with his album *The Circular Breath*,[151] a fact that demonstrates how much a part of the piping tradition the use of staff notation has become. It would be unusual for a fiddle or flute player to do this. It seems that this shift in the form of reception from almost exclusively oral to a strong reliance on staff notation has occurred within the piping community in the last fifty years or so.

As many pipe tunes are notated in staff notation the repertoire is available to many other instrumentalists, although pipe tune books tend to be purchased mainly by pipers. Where pipe tunes exist in tune books that are compilations they tend to be classified as pipe tunes, even if the tune is a dance tune such as a reel (as opposed to a march).[152] This is because many fiddle and flute tunes cannot be played on the pipes as they go out of the range of the instrument. The complex system of ornamentation in tunes notated for the highland pipes can make it difficult for non-pipers to pick out the tune. This could be the reason why pipe tunes in compilations of dance music aimed at a more general group of instrumentalists are sometimes written out without the ornamentation that pipers usually require, making them easier for other instrumentalists to read. This highlights a division between the pipe repertoire and other tunes where notation is involved.

Another way of transmitting not just repertoire but also a style of playing via instruction using both text and notation is through the medium of a tutor book. One early tutor book

---

[150] See http://www.duntroonpublishing.co.uk
[151] Duncan, Gordon: *The Circular Breath* (Edinburgh; Greentrax Recordings, 1997)
[152] See *The Nineties Collection* (Ed. Ian Hardie; Canongate Books, 1995)

was produced by Scots fiddler James Scott Skinner. His *A Guide to Bowing* published in 1900 gives detailed explanations of bowing and ornamentation as well as style and tips on how to choose good instruments and bows.[153] Some tunebooks also provide explanatory notes on technique, as well as including graded tunes for students to progress through.[154] In contemporary times there is an increasing trend for traditional players with an established reputation to publish books of their compositions. This has been made easier with increased access to computer DTP facilities and programmes for staff notation and tends to be done on a small scale, quite often by the musicians themselves. Being able to buy such commercial products has become a part of the culture of the traditional music enthusiast. It is common practice for bands on the circuit to have a merchandise stall selling copies of their material on CD and in books. Other books serve to represent a snapshot of the state of traditional music in a particular time and place. One such recently published book, a collection of tunes by living writers of traditional music in Scotland, 'illustrates the range and quality of the idiom and its nineties interpretation in composition and performance.'[155]

To return briefly to the type of notation itself within tune collections, it is important to understand that the form the notation takes cannot be categorised as either prescriptive or descriptive, but must be cognitive (as discussed in an earlier chapter). The essential notes and rhythms of the tune are given without any reference to a specific performance and are not prescriptive of style. There is little reference to articulation or ornamentation. Peter Cooke is quite clear when he says that the use of notation as a tool for transmitting material can have a detrimental effect on live performance, particularly in the rhythmic interpretation. As mentioned in the previous chapter, it is the 'swing' created by what occurs rhythmically between the beats that is so difficult to describe accurately in notation. Many subtle nuances of timing are lost in transcription, and if those transcriptions are then used for teaching without reference to live recordings or performances the 'lilt' or 'swing' disappears from the music.

In relation to tune collections, the compiler assumes the reader has prior knowledge of the style and context in which the music will be performed. This can be confusing for those just taking up an instrument without much lived experience of the music. A beginner student of mine once came to his lesson and played just once through the tune I had taught

---

[153] This book is still in print today ed. Alastair Hardie (Edinburgh; Hardie Press, 1984)
[154] See Robin Williamson's *English, Welsh, Scottish & Irish Fiddle Tunes* (New York; Oak Publications, 1976)
[155] Lewis, Lindsay: National organiser of the Traditional Music and Song Association of Scotland in *The Nineties Collection,* ed Ian Hardie (Edinburgh; Canongate Books Ltd, 1995)

to him by ear the week before. He said he had found the notation for it in a book, then declared, 'the tunes are very short, aren't they?' It became apparent that he had no idea they should be repeated and arranged in sets. I sent him away to do some listening and to witness some live playing.

With traditional music the preservation of traditional formulas for performance is retained in the oral tradition and not included in notation, except perhaps in piobaireachd music. Generally, notated sources make little reference to how the music should be interpreted in performance practice. Individual tunes are notated, but there is a significant quantity of information to do with performance missing. Tunes in printed collections are never arranged in sets and it is up to the individual to devise their own arrangements for performance. This is the case in nearly every collection I have seen. Ó Neill's Music of Ireland contains a substantial section in the editor's introduction on the subject of ornamentation, but there is no mention of arranging the music in sets or any other guide to performance in a live context.[156] The formulas of arrangement for live performance are retained in the oral tradition. The fact that that information is generally missing from tunebooks assumes the reader has a prior knowledge of performance etiquette, or can receive that information elsewhere.

Notation as an aide-mémoire

There is evidence going back several centuries that notation was used as an aide-mémoire. Collections of traditional fiddle music in manuscript form began some time around the beginning of the C17th. Up until that point repertoires were traditionally retained in the collective memory. When the violin arrived in Scotland and Ireland around 1680 more musicians began having instruction on the instrument, and this generally included learning staff notation, and having gained musical literacy individual musicians began using notation as a way of keeping a larger repertoire of tunes close at hand.

The Wighton Collection held at Dundee Library is, according to its curators 'a treasure house waiting to be explored'[157]. It contains over 700 manuscripts (the earliest dated 1598) collected by Perthshire man Andrew Wighton (1804-1866) and ranges from bagpipe tutors to song collections and instrumental music. It includes examples of fiddler's

---

[156] Krassen, Miles: *O'Neill's Music of Ireland* (NY; Oak Publications, 1976) pp10
[157] The Wighton Database: http://www.wighton.sol.co.uk/index.cfm (Dundee City Council; 1995,1998)

manuscript books of tunes dating from around 1750-1820.[158] Some of these tunes are self-penned, some composed by other local musicians. Others are printed sheets with popular tunes of the day kept alongside much older tunes copied from manuscripts or received from other players. The purpose of notating tunes in this context was as a personal archiving system for the traditional instrumentalist. These manuscript books are still compiled by traditional instrumentalists and singers today.

Printed collections began to appear in the latter part of the C18th. These tended to be the collections of individual players or publishers with an interest in the music, and the material was generally connected with the regional style of the musician. In Scotland these include *The Malcolm McDonald Collection*, first printed as four single volumes in 1788, *The Glen Collection of Scottish Dance Music* first published in 1891 and 1895 in two volumes, *The Athole Collection of the Dance Music of Scotland* by James Stewart Robertson (a founding member of the Edinburgh Highland Reel & Strathspey Society), *The Angus Fraser Collection, The MacKintosh Collection* (four volumes of 357 tunes published from 1783-1803) and *The Patrick McDonald Collection of Highland Gaelic Airs* (first published in 1784). Patrick McDonald's brother Joseph published the first book of written pipe music *A Compleat Theory of the Scots Highland Bagpipe*. These volumes together contain tunes for the pipe, fiddle, harp and Gaelic song repertoire dating back to 18th Century Scotland and probably much earlier.

In Ireland the first collection appeared in 1726 entitled *A Collection of the Most Celebrated Irish Tunes*. The collection was published by Dublin based firm John and William Neale. The first serious collector of Irish music and song was Edward Bunting (1773 – 1843) who, together with his assistant George Petrie, transcribed the music as it was played traditionally. Altogether Bunting published eight hundred and seventy tunes before his death. Petrie carried on after Bunting's death, and his own work was passed on by his daughter to Sir Charles Stanford, who produced his complete *Petrie Collection* of one thousand five hundred and eighty two tunes in 1905. William Forde (1759 – 1850) travelled around Munster, Sligo, Leitrim, Galway, Roscommon and Mayo collecting tunes. Like many of the other collectors, notably the Scot Captain Simon Fraser, he appealed for

---

[158]The Wighton Collection of music manuscripts was bequeathed to Dundee Central Library reference department in 1884 by Mr. A J Wighton and examined by the author by permission of the curators David Kett & Brian Clarke in April 2001

subscribers in order to fund the publication of his collection. Like Fraser, he failed to get enough subscribers and his collection was not published in his lifetime.[159]

The manuscripts listed above were printed and sold mainly in the cities where the printing presses were. The collections exposed a wider group of both traditional and non-traditional players to the music. This coincided with a fashion for 'national' music and the romantic ideals of the 'wilder' aspects of 'folk culture', triggering a difficult relationship between the cultural establishment and traditional musical practices that continues until the present day. Before the advent of printing, traditional music could not be said to have had much value in the performance venues of the city and drawing rooms of the middle classes. But with written accompaniments and a few modifications this was possible.

It appears that the arrival of the printing press caused a divergence in the function of notated collections. Tune books tend to be a bit like catalogues in appearance, containing many tunes one after another in a fairly compact format. The intended market for these products would be dancing masters or ordinary players who could afford them. On the other hand, a published arrangement of a traditional tune with elaborate designs on the front cover and neatly set-out piano accompaniments would be intended for the upper class drawing room. At this point the value of notation simply as an aide-mémoire for traditional players was altered. The possibilities offered by printing along with concepts of authorship, intellectual property and the cult of the artist that developed during the C18th and C19th meant that musical texts became commodifiable resources. Indeed, Neil Gow would probably not have achieved the success that he did had he and his son Nathaniel not set up their own publishing business as a vehicle for publicising their compositions. A repertoire that had been a community-based oral resource suddenly became something that could be exploited commercially as a product. This was the start of a conflict of interests that has not been resolved to the present day. The result is that there are still difficulties in marrying the concept of common property resources with intellectual copyright, a subject that will be discussed in a later chapter.

---

[159] Many of these volumes are still in print, such as the *Glen Collection of Scottish Dance Music* first published in 1891 and 1895 in two volumes & reprintedby the Highland Music Trust in 2001
The current edition of *The Athole Collection* was published by Balnain House in Inverness in 1996
Taigh na Teud Music Publishers has taken the original manuscript copy of *The Angus Fraser Collection*, with permission from Edinburgh University Library, and published it in one volume.
The only copy of *A Collection of the Most Celebrated Irish Tunes*, first published by John and William Neale, is preserved among a collection of Edward Bunting manuscripts at Queen's University, Belfast.

As well as being useful aids for individuals, some collections came to represent a collective aide-mémoire for a displaced community, and a means of re-establishing a cultural identity, as in the case of Chicago-based Captain Francis Ó Neill's collection. Like Michael Coleman's recordings, his collection was made for the Irish community that had settled in the United States at the beginning of the C20th with the purpose of presenting musicians with an anthology of material designed to feed a 'reawakened interest in our national music.'[160]

Notation and standardisation

A fear that has been raised again and again is that notating traditional music will lead to standardisation. However, in the case of traditional music it is difficult to impose a standard where it is acceptable to be individual in style and technique, and where so much of transmission is to do with oral experience.

It is interesting to note how other oral traditions were affected when efforts were made to standardise them. In the C16th the Council of Trent led to the adoption of the Roman rite, and standardisation was subsequently desired by the church authorities. Members of the clergy wanted church services to be identical, but up until that time the music was passed on orally, making identical interpretations almost impossible. New music modelled on the former repertory had to be written down in order to ensure services would be the same. This in turn led to the oral tradition in church music becoming redundant.

It would be reasonable to assume then that a degree of standardisation in the playing of tunes might have occurred when printed collections first appeared, which in turn could lead to a decline in oral learning. However, the motives for first producing printed tune collections were very different to those of the church authorities in C16th Europe. In the case of traditional music there was no one authority that was attempting to take control of the way in which the music was to be performed or transmitted. It was taken for granted that variations would still occur in the interpretation of the material, as had always been the case. Even the 'great composers' of Scots fiddle tunes such as Neil and Nathaniel Gow, William Marshall, Robert Mackintosh in the C18th, and later James Scott Skinner (1843-1927) did not expect people to replicate exactly what was on the printed page.

---

[160] Ó Neill, Capt. Francis; *The Dance Music of Ireland* (Dublin; Walton's Musical Instrument Galleries Ltd. 1907)

These men had classical training as well as being dedicated to traditional music, and their compositions could be said to have been notated in a more prescriptive way than traditional tunes whose original composers had been forgotten because they contain more detailed indications of ornamentation, bowing and articulation. For instance, when James Scott Skinner published his tutor *A Guide to Bowing: Strathspeys, Reels, Pastoral Melodies, Hornpipes etc.* around 1900, he set out standards for interpretation and technique. However, it is unlikely that it was ever his intention for tunes to be played exactly as written, and he noted in the introduction to this book

> A Strathspey in a book is merely a skeleton; it must be clothed and all the "smush" (i.e. character) added. The tune - naked, is green bree. The tune clothed with individuality, etc., is hotch-potch. The Latter must be added by *each* player in *his or her own natural way.*[161]

James Hunter cites Neil and Nathaniel Gow in the introduction to their collection *Complete Repository of the Original Scotch Slow Strathspeys and Dances* of 1802, some considerable time after notated manuscripts had been used by musicians and musical literacy was fairly widespread, who stated

> In every part of Scotland where we have occasionally been, and from every observation we were able to make, have not once met with two professional musicians who played the same notes of any tune.[162]

Another question is whether the use of notation had an influence on the standardisation of tuning. Naturally there were difficulties associated with notating pitch on a stave from the moment it was invented. The stave's refinement has been attributed to Italian monk Guido d'Arezzo who died in 1050.[163] It has since been noted that

> A precise indication of the pitch of individual notes was possible, but only of those with an exactly defined pitch in the system of tones and semitones developing at that time.[164]

Although written of C11th church music, this is precisely the same problem encountered by C19th collectors and British ethnomusicologists in the C20th. At a time when it was

---

[161] Scott Skinner, James: *A Guide to Bowing* (Edinburgh; The Hardie Press, 1984) These introductory remarks were made in Skinner's guide which was first published in 1900.
[162] Hunter James: *The Fiddle Music of Scotland* pxi
[163] New Grove Dictionary of Music & Musicians, Volume 18, 2nd edition: ed Sadie, Stanley, ex ed Tyrrell (London; Macmillan Publications Ltd. 2001) p101
[164] Hindley, Geoffrey, ed: *The Larousse Encyclopedia of Music* (London; Hamlyn, 1979) p62

thought that some traditional British and Irish oral traditions would die out, music was notated in an effort to preserve it. However, as mentioned previously, when ethnomusicologists began transcribing this music, difficulties presented themselves because the tuning systems of highland bagpipe and some vocal and fiddle music were different from the western tempered system. Various symbols had to be devised in order to take this into consideration.

However, it is unlikely that any erroneous transcriptions would have had much effect within the communities themselves. It is more likely that the widespread adoption of equal temperament has had more of an effect on the way pitch is perceived in areas where older tuning systems were still practised. Even considering this, some of the older tunings have survived in the Donegal fiddle style and highland piping, for example.[165] As noted already, players of these styles have got around problems associated with notation by developing their own way of interpreting and notating for their own instruments. The highland bagpipe music written in staff notation is a good example.[166] What is sounded when a piper plays from notation is not what is actually written on the page. Were the same piece to be played on a tempered instrument it would a) be in the wrong key b) the pitches of the notes would be at different intervals to those of the pipes c) the whole piece would be at the wrong pitch (roughly three quarter-tones flat).

The next section deals with traditional music transmission on the internet. There is an ongoing discourse amongst traditional musicians to do with the changing nature of transmission in relation to recent (and not so recent) technological developments. This debate will be discussed in more detail in a later chapter.

Internet Facilities Developed by the Traditional Music Community

I have occasionally used the term *community* when describing a group or groups of traditional musicians. Before embarking on this section I would like to define this term more precisely in the context of this study. Within traditional music there is a definable sense of the existence of a network between the body of practitioners, both in terms of shared instrumental practices and regional locations. For example, most traditional players will listen to and be aware of others performing in a similar field elsewhere, either through their recordings or live at sessions, festivals and so on. Fiddlers will know of regional

---

[165] See earlier section on tuning systems in chapter 2
[166] Collinson, F: 'The Bagpipe, Fiddle & Harp' (no page numbers)

styles and exponents not just from within their own localities but from all over Scotland and Ireland. Therefore, I may use the term 'the fiddling community' to refer to fiddlers generally. I may also refer to the traditional music community of a certain location, Donegal, say, that would refer to all the instrumentalists of that region – pipers, flutists, fiddlers and banjo players alike. I may also refer to the community of traditional musicians that uses the internet, or those who only learn orally. These various communities make up a whole network that is constantly making connections. They have in common a shared oral resource and cultural traditions that are distinct from other musical practices that define their music. Where I simply use the term *community* I am referring to this body of people in a general sense.

Traditional musicians have developed interaction with the internet and have set up online facilities mainly for the purposes of transmission and reception. This section explores the extent and nature of internet use by the community. The information here is mainly descriptive and anecdotal, broadly covering the spectrum of activity. The resources and activities are a combination of text-based and orally transmitted musical ideas.

In 2001 I conducted a survey of close to 200 traditional musicians to judge the extent of internet use amongst traditional musicians in Britain and Eire. The respondents were musicians attending sessions, festivals and performances that featured traditional music. Some were amateurs, some beginners and a few were professional or semi-professional performers. The respondents ranged in age from 14 to 80 years and were from a broad social spectrum. 43% of respondents used the internet as a resource for their music making activities. In this section of the paper, therefore, I am discussing a sample of just less than half the traditional musicians of the Scotland and Ireland. However there is no doubt that information from the internet-using sector of the community filters down to most other traditional musicians in some way.

Interaction with the internet comes in all forms for the traditional musician. Some of the websites frequented by traditional musicians are shared with a wider group of users - music fans in general, for example. It will become apparent to what extent different groups are catered for as each facility is discussed. The subject of the **abc** language will be dealt with separately as it requires a section of its own.

The first type of site is the website where a band promotes its own musical activities. I have chosen as an example that of Irish band *Lúnasa.* [167]

This site is a well designed site which opens onto a front page with various options to view - tour information, news describing awards and other successes, biographies of the musicians, CD reviews, a message board and so on. It is also possible to listen to extracts from the albums as MP3 files. These types of features are all normal for a band website catering for fans. They also have information for promoters as well as the facility to buy CDs online, which cover the commercial side of the band's operations.

However, this site also has several features that cater specifically for the traditional musician. Firstly, there is a page that displays examples from the band's repertoire of tunes as JPegs of staff notation that can be downloaded for free entitled 'Music Notes'. These have now been published in a *Lúnasa* tune book put together by Donogh Henessy, the band's guitarist. Anyone who left an email address on the website has now been informed of the publication and how to get hold of a copy. The book is a complete collection of all the material on their currently released three albums, much of which is original. The initial aim was to post a different tune on the web page every two weeks.

It is acknowledged that much of the interest in the band is in the material, with musicians wanting to play the tunes themselves. Most fans will have an aural reference of the material from the band's recordings, but having access to Lúnasa's versions of the tunes in the form of notation can speed up the learning process.

Posting notation is a good way of luring potential interest for more commercial exchanges. Cranford Publications, a publisher of traditional music, uses this method as a marketing ploy to entice musicians to buy hard copies of their books.[168] Offering a free taster could be to the benefit of the publisher. Additionally, for those who cannot print out easily or cheaply from the net, it is a good way of letting potential customers know that the product is there.

---

[167] http://www.lunasa.ie/nonflash/htm
[168] Jack Campin in conversation with the author 29.6.01

Secondly, the *Lúnasa* message board is interactive. The band members regularly respond to queries posted on the message board by individuals.

Finally, the news pages, which the band updates regularly as they tour, serve an important function. Knowing the personalities in the scene and what they are doing is not just about gossip. All traditional musicians like to know *where* people are playing, *to whom* they are playing and who they are playing *with*, be it in a concert setting or an after hours session.

It is important to be able to make connections between individuals and groups within the social structure of the community. Making links demonstrates *how* musical material is moving around and helps a musician evaluate their own position within the community as a whole and to know their place in it. Knowledge of the scene partnered with a live experience of music-making is representative of the process of transmission. It establishes those session players as living, functioning parts of the whole cycle of gift-sharing in the traditional musical sphere.

This site clearly shows the combination of commodification and gift sharing which is typical of the traditional music sites and the scene in general.

Information websites

There is an abundance of websites that present general information of all kinds for the traditional musician. These vary from sites that cover a wide geographical area to ones that are extremely localised. Some of these sites cater for enthusiasts who do not play themselves but want to hear the music and get general information about recordings and live performances.

More specific sites actively discourage non-musicians. John Chambers makes a point on the front page of telling visitors to his *JC's ABC tune finder* site that it is a site for *musicians* so there is no mistaking the nature of the site;

> Advice for those who came here looking for recordings: **There are no recordings of music here.** If you don't understand how you can have a music site without recordings you are definitely at the wrong site. Few people other than musicians will find anything interesting here. [169]

---

[169] http://www.jc/music/abc/FindTune.html

Other web sites contain lists of sessions, usually at pubs that promote traditional music. These serve the dual purpose of catering for the cultural tourist as well as visiting musicians. Teachers and players have set up sites with information on their own compositions and gigs. There are listening sites with reviews of CDs - some with downloadable MP3s. These cater for listeners as well as for musicians who want to learn the material to play.

Magazines that specialise in traditional music also have their own sites with links to the sites of artists, promoters, etc. There are sites for book publishers, music societies, summer schools, festivals & courses. More specifically for the musician are websites that consist of lists of tunes, questions and answers on playing style and techniques for all instruments. Also there are sites for instrument makers and information on repairs, maintenance and instrument building, instrument sales and information on the history of instruments. Some specialise in the history of the music, tune archives and so on. In addition there are websites that feature news on all of the above and E-shops for instruments & accessories. The list is endless.

One interesting aspect of this is the discourse that takes place in the forum of discussion rooms. To a great extent it is here that online transmission is being defined as less experienced musicians are shepherded in their musical and social interaction.

For example, at *The Session* discussion page, one musician enquires how to write tunes in **abc** and is directed to the **abc** homepage by another enthusiast.[170] In another discussion on the same site the issue of accompanying traditional music with guitar chords is debated. One player asks why chords tend not to be submitted with **abc** files. The question elicits an immediate response from seven others. Their collective answer gives a general indication of the attitude within the community towards the fixation of arrangements and accompaniment, alongside practical hints.

The way these discussion rooms can provide a consensus of opinion in a short space of time is interesting. Newcomers are not left with misconceptions for long in this online environment where a collective responsibility for the tradition seems to be in the process of being established.

---

[170] http://www.thesession.org/discussions/display.php/536

In traditional music, educational practices have long been established so it is no surprise that there are organisations that specialise in education on the Internet. This kind of website differs from those that offer tips on technique or information on courses because they offer an *online* teaching facility.

One such enterprise is Cork-based company Mad*for*Trad[171] who provide an online or downloadable tutorial package on the internet. They offer a selection of lessons on a variety of traditional Irish instruments – fiddle, bouzouki, pipes, whistle, and so on, as well as the voice. The tutorials offer an interactive element that is lacking in the video format, providing photographs, exercises and passages of instructional text with notation, if desired, along with the all-important element of moving images. There is a strong emphasis on cultural history, often with notes on the repertoire and biographies of the instructors.

Another example is Scoiltrad,[172] an online Irish traditional music teaching website. Students have the option of a lesson on fiddle, whistle, flute, uilleann pipes or bodhrán as well as being able to choose an ability level that suits them (not complete beginners yet). There is, at the time of writing, a choice of eleven tunes with a brief description of each, e.g. 'A lovely reel with a wonderful melody normally played at a slow pace'. Each lesson focuses on teaching one tune. Audio samples of the tunes are given, but they are not of the same high sound quality as the lessons themselves.

Students pay an average rate (compared with the equivalent in a live environment) for a lesson by credit card in the same way as any other internet transaction. The experience is designed to be a combination of aural and visual stimulation to 'enhance' the learning experience. Students *hear* the music, *see* it being played and *read* the notation. To begin, the customer clicks on the tune he or she wishes to learn and is then taken through the buying process.

The lesson is interactive in several ways. The student receives a downloadable video & audio lesson that can be played at full speed or in slow motion - at 80% of full speed with ornamentation or at 50%. They can also download fingering charts if they feel they would

---

[171] http://www.madfortrad.com/home.htm
[172] http://www.scoiltrad.com/resouces/resources.html

find them useful. The student is then encouraged to make an MP3 of their own playing and send it to the school for critical feedback.

In an article posted on the home page for The Celtic Café by Zina Lee of Denver, Colorado, USA, three hypothetical examples of people who could benefit from the site are given - one in Brazil, one in Japan & one in the USA. She describes them as students from all over the world, accessing and interacting with the 'intricacies' of Irish music as passed down from generation to generation, reading e-mailed assessments of their lessons, powering up their computers and pinching themselves that they are learning from an expert via the net.[173]'If a student has access to the World Wide Web and a computer, they have interactive access to a master teacher of Irish Traditional music, at any time or day' states Lee.[174]

This facility is aimed specifically at distance learners who do not have access to Irish traditional musicians from whom to learn. According to the members of Scoiltrad it has so far attracted students from the US & England, with a very small number of others from Mexico, Australia & within Ireland itself.

The three traditional musicians who set up Scoiltrad are Conal ÓGráda from Cork (flute), Eoin ÓRiabhaigh also from Cork (uilleann pipes) and Kevin Glackin, with roots in Donegal and Dublin (fiddle). The company won a competition organised by Údarás na Gaeltachta (Irish Gaelic-speaking area Industrial Authority) which helped the group to get the project off the ground. Scoiltrad's ambitions are to develop more classes for different abilities - beginners, for example. They want to introduce more tutors and instruments, to tour and meet students 'to put a face to them'.[175] They hope in the future to organise residential courses in Ireland that will feature concerts and access to archive material with a 'general immersion into the culture of the country'.

In a recent magazine article Donal Lunny described the site as 'an appropriate way to apply modern technology'.[176] Can it be surmised from this that there are *inappropriate* ways to apply technology? Ireland has long led the way in the teaching of traditional music. Teaching methods could even be said to be standardised to a certain degree.

[173] http://www.celticcafe.com 14/1/02
[174]Lee, Zina: 'Bringing Irish Traditional Music to the Global Schoolroom' (http://www.celticcafe.com May 2001)
[175]Conal Ó Grada cited in Lee, Zina: 'Bringing Irish Traditional Music to the Global Schoolroom'
[176] Lunny, Donal: *FRoots* review section #223/224 (London; Southern Rag, Jan/Feb 2002) p17

Teachers go on training courses to learn how to teach by oral methods and many have firmly held views on how it should be done.

'We prefer to teach how to learn' says Caoimhín MacAoidh, a Donegal teacher who is also an **abc** user.[177] He makes a distinction between *linear* learning (learning a sequence of events) and *poetic* learning (remembering patterns and phrases). His personal philosophy is that music is an aural phenomenon and should be learned by example via oral methods.

> Music is an ear thing. Why should you use your eyes for that? Forget that! Use your ears.[178]

This method of teaching and learning definitely has benefits that other methods of distance learning do not i.e. that it happens live, leading to immediate two-way interaction. The visual aspect of it is seeing the musician play, not seeing notation. Scoiltrad's system goes some way towards getting closer to this ideal. Even so, at this stage it must be stated that because of technical and financial conditions it is really only available to a privileged group.

In order to participate, a fair amount of computer literacy, time, equipment and technical expertise is required. System requirements are quite sophisticated with Apple QuickTime (for movies) & large memory capacity (32 MB of RAM) plus 50 MB hard drive disk space (for 5 minutes recording time), WinZip, Stuff-It or PowerArchiver, MP3 Encoder & MP3 player. To help, Scoiltrad has compiled a guide to recording students' sound files that can be downloaded. They have placed a limit of 1 Megabyte on sound files downloaded by them for assessment.

The benefits for Scoiltrad are that because the business is e-based the musicians can interact with students, wherever they are in the world, even when on tour. Scoiltrad has the advantage of not having to deal with bulky, slow and unreliable postal services and the overheads are lower as students are dealt with online.

Learning videos have been available for some time, but new online technology means that the *interactive* aspect is the selling point. However, there is an argument that indicates the cultural costs to the community as a whole could be quite high. The concept of isolated

---

[177] The **abc** system is covered in detail later in this chapter
[178] MacAoidh, Caoimhín: 'The Legacy of John Doherty' (Edinburgh; *Fiddle2001* Festival, 24.11.01)

individuals all over the world getting identical lessons could lead to accusations that this type of learning could lead to standardisation.

In some ways this project could be said to epitomise the commodification of Irish music - the very essence of Irish culture being promoted on the global market as a saleable commodity, and the use of the term 'product' in the following quotation tends to reinforce that. Despite the obvious commercial aspect of the enterprise, there is a fair degree of altruism. However, this is mingled with a pragmatic need to make the business work financially.

As Conal Ó Gráda sates:

> We firmly believe that the idea is good, that the product is a valuable and unique learning aid /opportunity, and that if we keep the faith and work like demons, the business will be a success.[179]

The group is being encouraged to think in terms of increased professionalism and is having to deal with issues to do with marketing & growth, commerce, product development and new partnerships with others in the business community. Many traditional musicians have had to earn a living outside music because they have no choice. It is only relatively recently that is has been possible for traditional musicians to make a living solely from their music.

Perhaps the advent of this kind of commercial online activity marks an acceleration in the number of traditional musicians with the expectation of developing their practice in a more professional way. How enterprises such as Scoiltrad will cope with keeping a balance between newer commercial pressures and the older gift-sharing values of their own musical community remains to be seen.

The virtual session

Various online session sites such as *The Session*[180] exist that serve the purpose of allowing visitors to exchange tunes, discuss the music with others and create 'personalised' tune books.

---

[179] Conal Ó Gráda: http://www.scoiltrad.com 14.1.02
[180] http://www.thesession.org/tunes/display.php/674

The Session has various pages. There are tunes that can be displayed, or printed as **abc** files or staff notation, plus comments on the material, the author and so on.[181] Musicians can submit tunes to the 'session' as **abc** files. Recordings can also be submitted and links can be added.

The discussion page, as mentioned above, is a forum for all kinds of issues from **abc** related subjects to festival information, accompanying and queries about identifying tunes.

There are a variety of links e.g. a *learning session* that provides a means of practising by using player programs that will slow tunes down, and hints on picking up material by ear.[182]

Many of these kinds of sites do not originate in Scotland or Ireland and tend to cater for North American and Australian enthusiasts in communities founded by Scottish and Irish settlers. They focus mainly on Irish traditional music (ITM) and have little in common with live sessions, as there is none of the direct one-to-one interaction of an oral nature that exists in a live setting.

PiobMaster

PiobMaster is a piece of interactive software that, once downloaded, enables the user to perform a variety of tasks related to highland bagpipe music. One website that makes use of this programme was set up by the Scottish Piping Academy in Glasgow. Its primary function is as a collection of pipe tunes, with an emphasis on passing them on. This collection of material can be increased as pipers input their own choices of material from their own compositions to any tune they have learned. If a user chooses to learn a tune, they can first have a demonstration of the tune with both a visual display in standard pipe notation plus a sound file of the tune as it would be heard. A moving marker links the sound to the notation to enable those who need this facility to follow the notation while the sound file is being played. The pipe notation for the tunes chosen can then be printed out.

If a user wishes to input a tune on to the site, the PiobMaster program offers the facility for doing so. Notes can be positioned on a blank stave once the time-signature has been

---

[181] The **abc** system is discussed in detail later in this chapter
[182] http://www.slowplayers.org/SCTLS/learn.html#kinesthetic

selected. Since all pipe music is written without a key signature and there is no need for accidentals this is a relatively simple task. A key feature of this program, however, is the ability to position generic ornaments correctly. The ornamentation in pipe music is what gives it its characteristic sound, so this is an important feature of the program. When inputting musical data a wide variety of ornaments is displayed on the screen. These can be picked up and correctly positioned once the basic notes of the tune are in place.

Obviously, this site can be accessed from anywhere in the world, and it was noted that it was frequented by several piping institutions in the US, presumably keen to keep in contact with developments in Scotland. Links are set up between similar sites, so the spread of the use of programs such as PiobMaster must be increasing daily.

The abc System

Devising a new notation

One innovation that has been specifically designed for the transmission of traditional music has come into existence alongside the expansion of the internet. It is the **abc** musical system. The function of this section is to give a broad description of **abc** and describe the scope it has for dealing with the transmission of traditional musical material on the internet. It is not intended to be an exhaustive explanation of the **abc** system, rather to examine the scope it has for dealing with the transmission of traditional music on the internet as a base for a more philosophical discussion. It is also an investigation into how some of the problems associated with western staff notation (as mentioned above) were approached during its development.

abc is an ASCII (American Standard Code for Information Interchange) format language. It was devised by British musician Chris Walshaw and went online in 1991. Other members of the **abc** community are now developing the system and working towards standardising the language. [183]

Devising a new notation for traditional music creates an opportunity to re-address the function of notation for practicing traditional musicians. Walshaw and other designers of **abc** software, as well as ordinary users, acknowledge that any notation for an oral tradition

---

[183] http://www.gre.ac.uk/~c.walshaw/abc/.

will have limitations. This is a descriptive, rather than a prescriptive notation. The key issue is that it needs to operate in a way that is more suited a) to the genre of traditional music b) for the musicians who are most likely to use it and c) for the platform on which it will be established i.e. the internet. The main criteria seem to be;

a)   That the notation is recognised mainly as an aide-mémoire

b)   That it will in no way prescribe performance style that may lead to standardisation

c)   Acceptance that traditional formulas for performance remain in the *oral* tradition

d)   That it will be able to take into account variations in tuning systems

Chris Walshaw, **abc**'s original devisor, did not have a totally blank slate from which to start. Note names and time values were developed in the system of western staff notation and have slipped into common usage in the technical musical language of traditional players, whether they can read notation or not. Walshaw has adopted this terminology as a basis for his system.

However, the two systems soon go their separate ways. For a start, **abc** does away with the concept of a stave. Although staff notation is symbolic, **abc** is even less representative as a notation. Each file has its own *header* that lists a series of *information fields* that must be defined at the outset. Some of these fields have to be shown in the header, such as the L field (default note length), the K field (key), the M field (time signature). Others are optional, such as tempo (Q), source (S) etc. The X field indicates the tunes in a file as an index system. [184] Walshaw explains that if one is intending only to use **abc** for transcribing tunes, only the T, K, M and possibly the L fields need to be used (Title, Key, Metre & default note length respectively).[185] The *body* of the tune contains the basic pitch and time values of notes.

Interpretation by the musician receiving the transmitted traditional material is expected to complete the process of transmission. This concept demonstrates an awareness of the function of notation in support of oral transmission. Norwich-based **abc** user and wooden flute player Kate Ross asserts 'anyone worth their salt knows that in an oral tradition it is

---

[184] Mansfield, Steve: 'How to Interpret **abc** Notation' (an online tutorial) http://www.lesession.demon.co.uk/abc/abc_notation.htm
[185] http://www.geocities.com/Nashville/7088/abc4mac.html

generally taken as read that your notation of a tune is only *your* interpretation.'[186] It is acknowledged that live performance completes the equation.

Bearing in mind that an **abc** file in itself is a fairly ambiguous thing, it is up to the person transmitting or receiving it to decide on the form it may take. It could be in **abc** notation, or it could be converted to staff notation or an audio version. Additionally, the function of the file could vary from a way of converting a tune to staff notation, as a media for composition, to learning a tune by ear or teaching oneself to read music. The most common usage is as a means of accessing tunes from online archives. In some cases all the information contained in **abc** files relates to its musical content. However, the facility is there to include a great deal more information in text form that ranges from the historical and geographical to biographical details of the author e.g. the S field has been set up to include information on the source from which the file writer learned the tune. Unlike tunebooks there is no one editor, so there can be a huge disparity in the amount and type of information included with each file.

Jack Campin is another expert user of **abc** files whose comments support Kate Ross's assertion that the receiver is assumed to have prior understanding of the genre. He explains how other musical systems of notation devised for an oral tradition acted as a guide to how **abc** could incorporate similar aspects of Scottish and Irish traditional musical features. An early form of notation for western European church music pre-dating the C14th consisted of a system of grouped neumes that had been able to indicate indeterminate pitches without having to try to specify them. Like bagpipe notation this system assumed an oral knowledge of the genre as a guide for the performer when it came to pitching notes, ornamentation and the style in which the piece was to be played. All that was required was an *indication* of something already understood by performers - not a precise representation.

Most people who play a pipe tune will be playing it on the pipes, so it will sound right anyway. But this is a direction I would like to take. I've been looking at the Turkish system of notation that tells the reader which maqam [scale with microtonal variations] to use. Then the music is notated with the assumption that the player knows the system. In **abc**, microtonal sharp & flat signs could be used and like the Turkish system measure 4 or 5 to a semitone. At the beginning of the file it would have to say which pitches are different.

---

[186] Kate Ross in conversation with the author 29.1.02

On the Mac program *Barfly[187]*, there is a function called 'edit intonations' and you then save the preferences with the tune.[188]

This is an example of an idea that has been incorporated into **abc**. In the **K** (key) field, the terms **K:HP** and **K:Hp** are used. **K:HP** indicates the tune is for highland bagpipes and leaves out the key signature that is in line with highland pipe notation. **K:Hp** inserts F#s, C#s and G naturals in the body of the tune giving us A Mixolydian, which is how the bagpipe mode is represented in staff notation for non-pipers. When converted to Postscript, both **K:HP** and **K:Hp** makes the staffs and beams in the body of the tune go downwards, as they would in highland bagpipe notation, leaving room for the ornaments to be easily distinguishable by beaming them above the notes.[189]

'The Devil in the Kitchen'

If we take a simple traditional tune that has been notated in both staff notation and **abc**, the differences between the two systems become immediately apparent. The example here is *The Devil in the Kitchen*, which was written as an **abc** file by Nigel Gatherer for, his mandolin class at Edinburgh's Adult Learning Project.[190] Overleaf are the two versions, one an **abc** file, the other in staff notation.

I would also like to explain the process of interpretation from my point of view as a traditional player. Firstly, I know this tune inasmuch as I have heard it many times before and know roughly how it goes. I could have hummed it to another player, but did not know the details of the tune. The tune was not in my repertoire and I had never played it on my instrument before. I did not know what key it was in.

In the **abc** header we are given the file number of the tune in the index (151) and the title. We have the information that the tune has various sources, in other words Nigel Gatherer has come across this tune in several different locations. He himself has written the file. The tune is in 4/4 and the key is A. The default note length is a quaver (or 8th note). From the staff notated version we get the title and the time and key signatures. There is also a line of mandolin tablature below the notation.

---

[187]One of several programs that employ the **abc** system. *Barfly* is a text editor, player & transcriber in one package for Macs. See appendix 2
[188]Jack Campin in conversation with the author 29.6.01
[189]For more information on **abc** notation go to http://celtic.stanford.edu/pub/tunes/abc2mtex/INTRO.html
[190] http://www.argonet.co.uk/users/gatherer/scottish/mandopp/tabs/31dev.html

I gleaned from the **abc** header that the tune was in the key of A. In fact this tune is in the mixolydian mode, as are the majority of major sounding traditional tunes, i.e. with a flattened 7th. A G natural is notated so **=G in abc.** The staff notated version has the key signature of three sharps and again a *natural* sign has been placed before each G as an accidental. Gatherer need not have bothered with his = sign as instead of writing A in the K field (key) he could have written *Amix*, and the majority of players would have known what he meant.

The Devil in the Kitchen 1 (abc Notation)[191]

X:151
T:Devil In The Kitchen, The
S:Various
Z:Nigel Gatherer
M:4/4
L:1/8
K:A
f<a|e>A A/A/A e>A (3fed|e>A A/A/A =g2 f<a|e>A A/A/A e>A (3fed|
B>=G (3dcB g2:|]f>=g|a>A A/A/A e>A A/A/A|a>A A/A/A/ =g2 f>g|
a>A A/A/A e>A (3fed|B>=G(3dcBg2 f>g|a>A A/A/A e>A A/A/A|
a>A A/A/A =g2 f>g|a>f =g>e f>d e>c|B.c d>e =g2|]

An audio example of this tune can be heard on the accompanying CD.[192]

The Devil in the Kitchen 2 (staff notation)[193]

---

[191] http://www.argonet.co.uk/users/gatherer/scottish/mandopp/tabs/31dev.html
[192] Track 17
[193] http://www.argonet.co.uk/users/gatherer/scottish/mandopp/tabs/31dev.html

I then looked at the main body of the tune. The first point to pick up was that the rhythm had only been loosely represented. **f<a** indicates that the first note is shorter than the second - **e>A** meaning the reverse. As I already had an idea of the rhythm I had no difficulty interpreting this.

The staff notation has these notes written as a semi-quaver followed by a dotted quaver, and a dotted quaver followed by a semiquaver. However, some players would not play precisely that rhythm. They may feel more inclined to 'double dot' the quavers to give a snappier feel. It is up to the discretion of the player. Giving a looser indication as the **abc** does is perhaps a way of showing to what degree interpretation is up to the player. It implies to the receiver 'some notes are longer than others. Exactly how much longer is up to you!' In contrast, because there is no flexibility, the staff notation seems to imply 'this rhythm is the correct and only way of playing this tune.' Again, this is cognitive notation.

To move on, the figure **A/A/A** (as in bar 1) is interpreted in the staff notation as two semi-quavers followed by a quaver. A forward slash following a note in this way means that the note is shorter than the default length, in this case a quaver. From my recollection of hearing the tune I know there ought to be an emphasis on the first of that group of notes, for example. It might turn out sounding more like a triplet.

At the end of the same bar is the figure **(3fed** that means a triplet and is written as such in the staff notated version. This is how I would play the figure in both cases. I think what this indicates is that in **abc**, where a precise rhythm is important, it has been indicated. When it is up to you, the notation can be less precise.

In bar 8 of the **abc** notation there is a natural sign (=) preceding the low G, but not the two Gs an octave above, but a G natural is obviously intended.

The beaming of the notes in the staff notation indicates that there is a strong pulse of four beats to each bar. This is also indicated in the **abc** notation by the grouping of the notes.

Finally, there are a couple of anomalies in the **abc** notation. The first is at the end of bar 4 after the repeat sign. I am uncertain as to the meaning of the] sign which is also placed at the end. My guess is that is meant 'go back to the top'.

The other anomaly is probably a typographical error occurring in the last bar. Between the first two notes is a point like so B.c. This means nothing in **abc**. I think it should be B>c. The > sign is on the same typewriter key as the point on most keyboards.

I got a strong sense that my prior knowledge of the idea of the tune helped a lot in interpreting the **abc** notation. However, the same would apply to staff notation. The main difference seems to be that **abc** is less prescriptive than staff notation.

The development of the abc system

The way the **abc** formal language and associated programs developed follows a pattern linked with programs that have been collaboratively worked on in an online situation. This kind of collaborative development is thought to be unique to the online environment. However, it is similar in many ways to the development of written English over the centuries, which was eventually standardised through an evolutionary process with contributions from many individuals. Like the Linux project, **abc** was put under the GNU General Public License copyright agreement that was developed by the Free Software Foundation.[194] This means that the source code of the program can be modified by a programmer and made available to all, but it can also be examined by others. Modifications are informally monitored - every programmer will have access to the contributions of others, and vice versa - theoretically leading to well written code.

Linus Torvalds, who developed the Linux system, claims programs that have been collaboratively developed on the internet usually share two features. Firstly, somebody (in this instance, Chris Walshaw) writes the basic program to the state where it is usable. The internet community then takes over and refines & fixes the problems, resulting in a much better program than the original. The important bit is to get it started and channel the program's development.[195] In this instance, Walshaw himself has 'bequeathed' the project to the community and has since moved on to other projects.

Secondly, the project needs to be interesting to programmers - it must have 'glamour'. It also needs to be accessible.

---

[194] Free Software Foundation, Inc. 675 Mass Ave, Cambridge, MA 02139, USA
[195] Kollock Peter: 'The Economies of Online Cooperation: Gifts & Public goods in Cyberspace' in *Communities in Cyberspace*; Eds. Marc Smith & Peter Kollock (London; Routledge, 1999) p231

111

The **abc** system shares these features. The promotion, recruitment and organisation for **abc** was carried out via the web as well as in the community generally.[196] From the outset the project was interesting to traditional musicians and programmers interested in the writing and audio-proofing of traditional music using text symbols. It has the attraction of being both a whole new system of musical notation readable by humans & computers with the added attractions of being able to convert to MIDI[197] and Post Script[198] as well as the potential for providing a massive online archiving system which can be fully cross referenced.

The computer literate sector of the traditional music community saw a fantastic opportunity for online transmission when the system was first being developed. Those who contributed code realised the huge potential it had for fulfilling the needs of the community as a whole in response to their problems. In addition, the traditional music community was already using an exchange system (a gift-sharing system) that could easily be transferred to the internet - an idea most people were already familiar with. This meant **abc** took off very quickly. As we have seen, the traditional music community contains elements that are quite dispersed, though it can also be very localised. Like E-mail, **abc** suddenly made it easy to keep in touch musically with like-minded individuals all over the world - the Nova Scotians with Scots, the London Irish community with Ireland etc.

abc is not the only new musical input language being developed for the internet, but it is the only one that originated as a system for traditional music, though it has since been taken up more generally. Other musical notation codes such as NIFF (Notation Interchange File Format), SMDL, MusicXML, DARMS and GUIDO exist [199] but **abc** as an input language and translation system is the most accessible. It appears to have succeeded well because it can generate a huge amount of online cooperation.

> **abc** has been so successful there are many programs that use **abc** without TeX.[200]
> With 10,000+ available tunes, **abc** is perhaps the most common format on the internet.[201]

---

[196]Kate Ross in conversation with the author 29.1.02

[197]Acronym for Musical Instrument Digital Interface – enables files to be converted to audio

[198] Converts file to other readable formats like staff notation

[199] For more information on these notation systems, check out the links at http://www.s-line.de/homepages/gerd_castan/compmus/notationformats_e.html

[200] TeX is a typesetting system that avoids features such as formatting etc.

[201] http://www.s-line.de/homepages/gerd_castan/compmus/notationformats_e.html

It is not necessary in this context to give a full chronology of the developments in **abc** software except to say that there are numerous different software applications that use the **abc** language.[202] Besides, the **abc** system is still developing at such a rate that writing software for it has been described as 'shooting at a moving target'.[203] People are encouraged by the permissive nature of the code to make their own extensions. However, the majority of users simply want **abc** to find tunes or to pass them on to friends.

The many **abc** collections (Walshaw listed 63 on his own site in 1999) are becoming increasingly popular. It has taken some time for the term **abc** and traditional music to be linked together, but it is becoming easier to find the sites. In September 2001 John Chambers wrote:

> I've noticed in recent months the phrase "**ABC** tunes" now has a very high rate of spotting the right web sites - at least for the first 200 or so matches at the major search sites. This wasn't true a year ago. It seems most people using **abc** now use this phrase in their web pages. I've found about 40 new sites for my tunefinder by using this phrase. They mostly have only a few tunes, but I've often had the feeling that a lot of small sites is better than a few big ones (even though mine is one of the biggest).[204]

Kate Ross was involved at the early stages of **abc**'s development in the early 1990s as Walshaw looked for musicians to try his new idea. She persisted with the idea because her band had agreed to test the system out by writing their own repertoire as **abc** files. Like many users, she now uses it most days as a matter of course, describing **abc** as an 'almost perfect way of chucking tunes around.'[205]

As **abc**'s use increased in the community, a larger group of traditional musicians began to use it on a fairly regular basis. It quickly became decentralised. Use of the **abc** language itself has proliferated leading to examples of extremely good **abc** projects as well as a quantity of badly written files. It is difficult to regulate how the language is applied by a wide band of users whose main concern is to use the system in as direct a way as possible - not to ensure that it is used 'correctly'. The various software packages themselves have a fairly well-regulated system of informal monitoring and continual assessment by a small band of enthusiasts with particular goals in mind. The **abc** homepage has not been updated for years - abandoned as the system has taken on a life of its own.

---

[202] For more information go to http://www.gre.ac.uk/~c.walshaw/abc/.
[203] Taylor, Phil; BarFly v1.0d30 instructions; http://barfly.dial.pipex.com/
[204] John Chambers, from the abcusers list abcusers@argyll.wisemagic.com 29.9.01
[205] Kate Ross in conversation with the author 29.1.02

An issue that is very important for the future of **abc** is the standardisation of the **abc** system itself - a different issue to the standardisation of the music it is designed to transmit.

Of course there are problems associated with the standardisation of notation of any sort. First of all technology has to be very advanced to produce a large number of identical copies. Secondly, without strict policing it is very difficult to prevent variations creeping in to any form of notation. The first service books that were printed in Rome and sent to churches throughout western Europe were not always identical, though the aim was conformity.[206]

abc has developed rapidly since its invention and has spread throughout the world via the platform of the internet in only ten years. However, the system itself has not been standardised and there is currently a debate going on as to whether standardisation of **abc** software is a good idea. Most of the information in this section comes from a snapshot survey of opinion that took place by following the dialogue between members of the **abc** users list *abcusers* between 29.9.01 and 30.10.01.[207]

A standards committee was set up comprised primarily of developers of widely used **abc** applications. The official members of the **abc** standards committee at the time of this study were James Allwright, Robert Bley-Vroman, John Chambers, Laura Conrad, Laurie Griffiths and Phil Taylor.

However, not all developers agree with the concept of completely standardising **abc**. One user says

> If I need a feature in **abc** to represent a piece of music in front of me I'll invent it and let the programmers catch up when they can. This is part of **abc**'s inheritance from similar paper notations - the user is in control - and it's something that shouldn't be lost. It's fine for an application to say that it can't figure it out, or to say that it doesn't meet some agreed standard, but that doesn't mean it shouldn't be there.[208]

A more individualistic attitude can also lead to difficulties in setting a standard as this participant explains:

---

[206] Hindley, Geoffrey, ed: *The Larousse Encyclopedia of Music* (London; Hamlyn, 1979) p60
[207] http://www.pasteur.fr/cgi-bin/pmtg/twikiABC/view/Main/AbcUsers (29.9.01 - 30.10.01)
[208] Jack Campin in conversation with the author 29.6.01

There are many developers who are more committed to their own software than to the concept of **abc** as a whole and who are generally hostile to a standard. That's why the standards committee set up earlier this year [2001] seems to have completely foundered. [209]

One member of the group fears that through inaction a retrograde step could be taken and at the very least the **abc** community must not lose cross-program file compatibility.

> **abc** as it is, is working right now. Whether there is a further development for the standard and/or the programs, **abc** is of some use for many people. Everybody wishes some extensions to the existing possibilities, but nothing is more important than improving the programs or new programs to fit to the standard[210]

There are complaints that those who are in the position of setting a standard are ignoring the needs of ordinary users, though this is disputed. The accusations are that the standards committee is an exclusive self-selected club.

> It seems it's the developers who are the only ones entitled to decide about the future of the standard, since they are the ones that write the code. Users that are not developers are usually ignored.[211]

But according to others, developers *do* listen to users and fix problems if they feel there is a demand for a particular feature, insisting that it is counterproductive for people to make accusations. Once a feature has been developed for a piece of software it needs to become standard. Some users claim they have been reporting bugs for years that have never been fixed and that there are many non-standard features that they use or would use if they were available.

> **abc** is not perfect. A number of people have put work into improving things and a number of improvements *have* been made. We could all do with a standard. This is an attempt to reach one.[212]

There has been discussion about setting up a library **named libabc** that eventually will handle **abc** file parsing so that development of new **abc** applications is made easier. The idea is that **libabc** is going to be strict with an **abcfix** program that attempts to standardise non-compliant **abc** programs.

---

[209]Bryan Creer, from the abcusers list 24.10.01
[210]Simon Wascher, from the abcusers list 28.10.01
[211]Taral, from the abcusers list 29.10.01
[212] Richard Robinson, from the abcusers list 30.10.01

abc was developed using open source that means that anyone is able to contribute to the code that can then be scrutinised by other interested parties. The benefits are that the code is regulated by the contributors. Some say that **abc** has got to where it is for this reason. Not all **abc** software is free, but this should not affect the development of an open library code that, some argue, should also be open.

> Have a library code that is free, open and contributed to by lots of people. Code that *uses* the library isn't necessarily free or open or worked on by people who aren't the ones getting paid for it.[213]

Another contributor writes:

> There *is* a point in being involved in an open-source project, even if you don't understand the language it is coded in. Coding is not the only way to contribute to a software project, or the most important . . .Open source could be an appropriate venue for working on the **abc** standard, as long as it's open to input from everyone. Coding would follow the standard, not the other way round . . . I don't think that should stop anyone from writing a useful tool.[214]

On open-source software in general, since the development of Linux there has been a movement toward open-source software as a model for achieving software programs that can be developed quickly and efficiently. This is more likely to succeed, in the words of Eric Raymond, if the concept of the 'Cathedral' is abandoned in favour of the 'Bazaar'.[215] He states;

> I think that the cutting edge of open-source software will belong to people who start from individual vision and brilliance, then amplify it through the effective construction of voluntary communities of interest.[216]

What Raymond is highlighting is the huge amount of cooperation that can go on when people are contributing for free as opposed to in a commercial environment.

---

[213] Laura Conrad, from the abcusers list 29.10.01
[214] jhoerr, from the abcusers list 28.10.01
[215] Raymond, Eric; 'The Cathedral & the Bazaar' (Web-published at www.tuxedo.org/~esr/writings/cathedral-bazaar 27.9.02)
[216] Ibid. p14

Reading a simple tune written in **abc** is probably the easiest aspect of the system. As mentioned earlier, **abc** is platform independent so an **abc** user does not need to have a computer in order to read or write **abc**. However, things get more complicated if a file is to be converted to MIDI for listening or PostScript for viewing or printing as staff notation. Then it is vital that not only can the file be read by people but that it can be correctly interpreted by the computer program. The computer must be programmed to understand every aspect of interpretation by an individual. This necessitates extreme accuracy by the musician inputting the data.

Canntaireachd was a verbal and notated form of piobaireachd music for the highland pipes developed centuries ago and there are problems writing it the form of **abc** files, as Jack Campin has discovered. Because of certain kinds of ornaments, sometimes the note lengths do not add up to a regular number of beats in each bar. As Campin says 'the player would know what to do and would probably not even notice that'.[217] However, an **abc-generated** version would produce errors. Here Campin talks about the process that can create problems when music is converted to **abc**.[218]

> One problem I've had when writing bagpipe tunes for **abc** is sometimes it's hard to write a grace note without it coming out looking like it's slurred to the next note. Occasionally I have to simplify what I write to get it onto **abc** clearly. I've had trouble writing **abc** for Jeff McLennan's book of C19th pipe music which has a lot of quasi pibroch & variations. In some of the variations they are not explicitly written as a triplet, but that is how it should be played. In **abc** you have two choices - to change from 4/4 to 12/8 - but then you have to put in a tempo change to make the triplet fit the length of a crochet in the 4/4 bit. Alternatively, you can use the **abc** way of writing triplets, [extended duplet notation] but this changes the readability of the **abc** score which comes out as an appalling mess with numbers everywhere.

A tune must be clearly notated in its basic form if it is to be notated at all. One needs to understand the musical genre for it to make any sense. But where is the line to be drawn in the case of **abc**? One can add ornamentation and details of tuning information but there is little point in notating variations without first ensuring that the core of the melody been transmitted correctly. Kate Ross will then include ornamentation in an **abc** file only if it

---

[217]Jack Campin in an email to the author jc@purr.demon.co.uk 29.6.01
[218]_____: in conversation with the author 29.6.01

seems appropriate. For example if a beginner wants the notation for a particular Irish tune, she might put a roll in where she thinks the tune needs it. For example, when you have three Bs in a row the experienced player would recognise that a roll is intended. For the inexperienced player, more information is required.

As further evidence that **abc** is a cognitive notation Chris Walshaw himself says:

> With regard to gracings, I fall in the Irish music camp which says that you transcribe gracings as little as possible and leave it up to the players to make their own interpretation.[219]

The most common sign for ornaments is a ~ before a note that indicates a triple, birr, cran or roll. If more detail is required, e.g. for highland bagpipe ornamentation, every grace note can be placed within curly brackets like so: {GdGe}. This example shows the ornament of the taorulath.[220] For ornamentation written in this way it is not possible to be specific about timings within the curly brackets.

Other problems arise not because of the amount of information that is written but the type. For example, users have encountered many difficulties when attempting to write **abc** files of keyboard music, like this contributor to the ongoing debate on the subject.

> I am a new **abc** user trying to figure out how best to do piano notation. I like **abc**. I think it's an easier way of me writing music than in Braille notation. Braille notation does allow piano and guitar notation by using characters that represent intervals. [221]

Although it *is* possible to write a file with several voices it is not really designed for that purpose. In an interview with the author, Jack Campin expands on the difficulties:

> **J.C.** Another difficulty in accurately recording music on **abc** is when it's chordal. It can be a mess in **abc** and very difficult to read. In writing piano parts there is often a mis-match between the score and what your fingers are doing. You can print two or more lines, but some funny things can happen - like a melody will cross from the treble stave to the bass one and back again. There is strong pressure just to leave chords out.

---

[219] http://www.geocities.com/Nashville/7088/abc4mac.html
[220] The third section of a piobaireachd
[221] Frank Carmickle, from the abcusers list abcusers@argyll.wisemagic.com 2.10.01
For more information on Braille music notation refer to:
www.grovemusic.com/data/articles/music/0/038/03814.xml?section=music.03814#music.03814

G.S. *Most traditional music is melody-based, so does this matter?*

J. C. Yes. Some of the original 'cello accompaniments for the C18th arrangements are worth exposing and **abc** is good for that. It wasn't just the drawing room style - a lot of these folk 'cellists parts were very lively and I don't think they should just be dismissed because of their associations. Barfly[222] will do several lines easily - you end up with something like a renaissance part book.[223]

The linear nature of an ASCII format system is no good for representing counterpoint. Continuing on the same theme, **abc** user Frank Nordberg wrote:

> We've been discussing piano notation a couple of times here at **abc**users and nobody has come up with a good solution. The problem is that **abc** is based on 'voices' while piano music often isn't like that at all. In the end I guess we'll end up with using a lot of program-specific features and still end up with really messy **abc** and messy staff notation output.[224]

This is an example of where the **abc** notation system is not suited to the musical genre it is trying to represent. This difficulty arises from the fact that keyboard music and melody-based musics stem from different musical systems. Consequently, a system of notation that was specifically designed for a melody-based system is always going to present difficulties for keyboard music. [225] John Chambers wrote:

> In keyboard music the parts can be expressed as a number of transient *voices* and this is often a more realistic description of what's going on. But **abc** notation isn't as simple to type as you might like, since you have to literally write it as a number of voices. Keyboard music seems to be the worst case for just about any kind of music notation. Guitar & lute have the same problems, but on a smaller scale. It's because these instruments can hold one note while moving another. A notation like **abc** which is based on linear voices is going to have problems with this. But a notation that *can* handle it is going to be a lot more complicated than **abc**. It probably can't be made easier in a linear script like ASCII, since such music is inherently 2-dimensional.[226]

Having elaborated on some of the difficulties, **abc** is nevertheless thought by some users to be ideal for the melody based system for which it was designed. If one is familiar with the music, i.e. how it is supposed to *sound*, what it *looks like* on paper is irrelevant to a certain degree. It is learning aid or an aide-mémoire. So long as the title, basic key, rhythm &

---

[222] **abc** program that is a text editor, **abc** player / transcriber in a single application
[223] Jack Campin in conversation with the author 29.6.01
[224] Frank Nordberg, from the abcusers list 2.10.01
[225] There is, however, a list of piano **abc** files at http://www.musicaviva.com/ (internet centre for free sheet music) formatted for BarFly.
[226] John Chambers, from the abcusers list 2.10.01

119

notes are given a traditional player should be able to pick up and interpret an **abc** file because of their previous oral-based learning, even with a relatively limited amount of information. In the survey, even those musicians who did not use **abc** were fairly positive about the system. One respondent stated 'I would have no reservations within the context of exchanging a *basic* tune', which, when it comes down to it, is really what it is all about.[227]

The users of abc

Following the dialogue that took place over a sample period of a month in 2001 at the **abc** users list site on the internet it is possible to gauge the kinds of activities that are taking place and the issues raised amongst **abc** users.[228]

The types of issues discussed range from problems with MIDI in the use of programs that convert **abc** to MIDI; information on new software developments; questions on legibility and interpretation when reading **abc** files; information on **abc** files of specific tunes; users looking for others to maintain certain software packages; questions on proposed software developments and how they will affect compatibility with current packages.

This small group is representative of those who are keen on the development of the system and the design of new software. They contribute regularly to the rapidly evolving **abc** scene through constant dialogue with one another in chat rooms on the internet such as abcusers. They tend to be the individuals who have set up their own **abc** archives or have other research-based **abc** projects of a more academic nature. These contributors are all keen users of **abc** but they are not necessarily typical of the 'ordinary' traditional musician who uses **abc**.

In addition to the picture the former group presents I will also bring in the results of the survey carried out in 2001 to determine the extent and nature of internet use by a range of traditional musicians. In order to gauge the opinion of a broad cross section of the community the survey was conducted in live contexts (i.e. not on the internet). Musicians were approached in environments such as sessions, festivals and gigs. 171 traditional musicians from Scotland, Northern Ireland, Eire and 12 from England were asked about

---

[227]Peter Brown, from comments made in a survey conducted by the author in 2001(Traditional Music Internet Transmission Survey henceforth abbreviated to ITTM Survey)

[228] http://www.pasteur.fr/cgi-bin/pmtg/twikiABC/view/Main/AbcUsers; (Survey of users 29.9.01-30.10.01)

their use of the internet in relation to traditional music and it was discovered that 43% of respondents use or have used **abc.** This demonstrates the extent to which the system has already been adopted.

The majority of **abc** users were aged between 40 and 60. There was a much larger representation in this age group (66.5%) than there was in the group of non-**abc** users (25%). What is interesting is that the vast majority had heard of the system by word of mouth from another musician, perhaps reflecting the strength of the previously established oral communication system amongst traditional musicians. A much smaller number had come across **abc** on the internet.

More men than women took part in the survey (68% were male, 32% female). However the ratio of male to female **abc** users (60% male - 40% female) shows that women are as likely as men to take it up.

Of those who use **abc,** nearly three quarters (73%) had been involved with traditional music for most of their lives and therefore had a great deal of experience of transmission generally. However, a large proportion of people who had been involved in traditional music for shorter lengths of time were also using **abc.**

Beginners were much less likely to show an interest in **abc,** their reasoning being that it was hard enough to learn the technicalities of the instrument and to pick up the tunes by ear without having to learn a new system of notation as well. Others said they had come to traditional music specifically to get away from having to deal with notation, attracted by the oral aspect of the tradition. Some could already read staff notation and could not see the benefits of learning another system of notation.

Experience must not be confused with age. Younger players with a lot of experience of traditional music were more likely to be users of **abc** than other players with less experience of traditional music, whatever their age.

40% of **abc** users had over fifteen years computer experience. Again, this statistic is not linked to age. Only a fifth of the non-**abc** users had over fifteen years of computer experience, so this is obviously a factor in determining who is more likely to take up **abc.**

Over half of the **abc** users were professional people by occupation, though none of them were professional musicians. However, the greater proportion (60%) considered themselves to be semi-professional musicians, with the remaining 40% describing themselves as amateur musicians. Less than a third of non-users said they were professional by occupation, but there were professional musicians amongst this group. There are interesting conclusions to be drawn from this information that are discussed later.

One does not need to read the notation to be able to benefit from **abc** files. There are various software packages that convert **abc** into different formats, but some musicians who have learned to read the notation quickly can sight-read an **abc** file as it is. The most common packages are those that convert **abc** to PostScript (to view or print out as staff notation) or MIDI, enabling a user to hear the file on the computer's sound system.

Of those people who use **abc**, three quarters of them can also sight-read **abc** notation. When asked how many people could sight-read **abc** notation in Edinburgh in 2001 Jack Campin replied; 'about half a dozen, but lots of people use it to print out tunes.'[229]

The fact that fewer people learn to read **abc** than use it for functions such as finding tunes and displaying them as staff notation is borne out in the results of the survey. I believe its use is more widespread than many traditional musicians think. Some are unaware of its existence as a notation system but still make use of **abc** facilities such as online tune archives. One respondent claimed she had never heard of **abc**, but had previously passed on to me at a session a tune she had downloaded from the internet that was notated in both **abc** & staff notation. I explained to her what it was and she has subsequently expressed an interest in learning **abc**.

All the **abc** users in the survey could read staff notation. The vast majority of respondents pick up music live from other players (94%). Perhaps surprisingly, **abc** users are more likely to receive music in this way than non-**abc** users. 80% of respondents pick up material from books. Again, **abc** users are more likely than non-users to get material this way (93% to 70%). This could be an indication that the more experienced and literate the player, the more likely they are to use books for sourcing material. It must be remembered

---

[229] Jack Campin in conversation with the author, 29.6.01

that there has always been a high rate of musical literacy amongst traditional musicians, especially in Scotland, despite it being an oral tradition.

Out of all the respondents, 14% mentioned other sources for finding material. Those who mentioned other non-**abc** sources on the internet (band web-pages with music notation to download etc.) again were more likely to be from the **abc** users group - 60% compared with 5% of the non-**abc** users group. Other non-internet sources mentioned were piping societies, teachers, radio, shared sheet music, libraries and archives. Again, the **abc** users tended to search further afield for source material than those who did not use **abc.**

The advantages of abc for publishers

The term publishing is being re-defined through the representation of musical scores on the internet. There are two aspects to **abc** in relation to publishing on the net. One is where it is used to benefit a publisher of books as a tool for luring prospective buyers. For example Paul Cranford of Cranford Publications, a publishing company based in Nova Scotia, uses it as a sales technique. He puts a couple of interesting tunes in **abc** format on his website to attract the interest of musicians.

As Jack Campin says, 'He knows that if people like the tunes and they know there are more in his book like it they are more likely to buy the book.' [230]

In this context **abc** is being used as a gimmick - perhaps taking advantage of its novelty value - but through its use musical information is also being transmitted. Cranford does also have a separate site specifically for **abc** users.

The second aspect, as several respondents in the survey suggested, is that **abc** is a useful publishing tool in itself. One respondent states; 'The benefits are the quick and moderately good publishing format (cheap as well).'

Johnny Adams, a prolific writer of **abc** files, has this to say on the subject;

> Apart from software package and platform incompatibilities [**abc**] continues to be a useful tool in music & publishing activities. **abc** is an excellent concept and should be stabilised and optimised for traditional music. Of the 1,750-odd tunes I have web-published, news of some of them being adopted into someone's repertoire is

---

[230]Jack Campin in conversation with the author 29.6.01

regularly received. On my internet discussion group *tradtunes* **abc** is the main medium of music interchange between the 150 members.[231]

Another respondent who has been involved in this particular project states:

> It's clear there's no way this mass of material would ever have been made available by conventional publishing. It's also clear that the small amount of English fiddle manuscripts that *have* been conventionally published have been heavily doctored & edited to meet the needs of modern barn dance players: **abc** allows the 'publisher' to cut out the cash nexus altogether & reproduce historical material uncut, unedited, available for serious scholarly analysis.[232]

Many **abc** users are people writing older unpublished sources as **abc** files if the tunes are unlikely to be re-printed. Jack Campin is one such **abc** file writer, very much involved with the digitisation of Britain's cultural heritage. His musical research focuses on the social history of traditional music, mainly in Scotland.

Jack Campin also describes 'legacy' groups who convert tunes to **abc** files from other older formats - like the Nottingham Music Database and BMW (Bagpipe Music Writer), 'but this can turn out as some of the worst **abc** I have seen. You need to do a lot of editing.'

abc user Kate Ross has used **abc** for the layout of a tune book project that involves writing approximately 300 tunes as **abc** files so that they can be typeset. The tune book will represent the mostly original repertoire of her band.[233] Apart from providing an archive of their material it will also be easy to create hard copies to sell.

There is a conflict between these two aspects of publishing - one a marketing tool for a commodity, the other a free online service. There has been trouble recently for the *Digital Tradition* website over copyright issues to do with traditional material published on the internet. In an extract from a letter published on the site, Dick Greenhaus said;

> The question of copyrights and folk music is a deep and knotty one. It's an admittedly difficult task for a tradition of oral transmission to coexist with the concept of intellectual property.[234]

---

[231] Johnny Adams of the *Village Music Project* http://www.performance.salford.ac.uk/research/vmp ITTM Survey 2001

[232] Paul Roberts: ITTM Survey 2001

[233] Tunes from the Massif Village Orchestra Project

[234] Dick Greenhaus: http://pubweb.parc.xerox.com/docs/DigiTrad/9607-letter.html 25.1.01

The site has the world's biggest digital collection of traditional song which, it is claimed, is visited 5,000 times daily, and with 3,000 links it is an important resource for scholars, singers and anyone else interested in singing. Jack Campin can foresee similar difficulties for **abc**.

> There will be problems eventually when **abc**s get to be more high profile and someone notices what's going on. Some people have asked for stuff to be taken off - like Phil Cunningham asked for one of his tunes to be removed, and fair enough. This is because it's published in a book and having it on a website would lose income for whoever sold the book and the publishers. You can make money out of notation.[235]

It is too early to see how the problems that are arising from publishing traditional material as **abc** files on the net will be resolved. In the next chapter I will discuss the issue of copyright in relation to traditional music in more detail.

*The **abc** system & education*

There are many instances of **abc** being used as an educational tool. Here are just a few examples.

Kate Ross inputs **abc** files and prints them out for musicians who attend sessions in Norwich as an educational tool. She says that if people can quickly get notated versions of tunes they hear at sessions and want to learn they are more likely to attend sessions regularly. This in turn leads to a more active live scene.

Some members of ALP (the Adult Learning Project in Edinburgh, which teaches traditional music to adults) are teaching the system to their students. Some people in this context are learning it as their first notation - so it is not exclusive to those who already understand staff notation. Most adult learners of traditional music will learn mainly by ear, and the notation in whatever form it takes is simply an aide-mémoire. For a beginner in this situation **abc** is probably quicker and easier to pick up than staff notation.

For the autodidact **abc** can encourage musical literacy as can been seen from the following anecdote.

---

[235]Jack Campin in conversation with the author 29.6.01

When I was first given **abc** software and VMP [Village Music Project] tune files my musical literacy was poor - it has transformed my abilities in this area dramatically and quite unexpectedly. This was because I rapidly learnt to associate the *sound* with the dots on the page - in effect learning to read music backwards.[236]

However, some musicians who are **abc** users have strong reservations about it being used as an educational tool. Caoimhin MacAoidh, the Chief Executive of a European Development Company and traditional fiddle teacher from Eire discovered **abc** whilst surfing the net. He uses it rarely but can sight-read **abc** files. He uses it mainly to identify tunes. 'It is of no learning value to me but I can see how remote learners find it very useful', he says.

The problem with **abc** as he sees it is that;

> It encourages people to learn music with their *eyes* rather than their *ears*. Traditional music is best and most effectively transmitted by ear. **abc** teaches you using your eyes (a very different organ than the one you should be developing). I accept its use in remote learning (beneficially) but so many recordings are now available to remote learners, to me they don't need **abc**.[237]

It is possible to hear an **abc** file, but not played by a real player. The resulting computerised version misses many nuances of interpretation, so even though MacAoidh is not entirely correct in his assertion that **abc** is purely visual, he is making a valid point about the differences between virtual transmission and on-line transmission. You can't beat the 'real thing' is what he seems to be saying.

Learning to understand the **abc** system does involve a steep initial learning curve. Some people are put off by that fact, even those who use the system frequently. A fairly high degree of computer literacy is also needed if one is to use it for anything other than writing and reading it from paper, E-mailing tunes to people and printing out files. However, learning to use simple **abc** programs such as abc2win and Barfly has been claimed to be on a similar level to learning MS-Word.

---

[236]Paul Roberts: ITTM Survey 2001
[237]C. MacAoidh: ITTM Survey 2001

Ross explains; 'It is not as obvious and straightforward as some may think. It would be easy to give up at an early stage'.[238] 'You have to be fluent in writing in that format to really benefit from the system' says another user.

One respondent claimed;

> A lack of authoritative advice on which program does what is a problem. Reasonably advanced computer literacy is required. There's nowhere to go for support or advice. The **abc** homepage has not been updated in four years and the newsgroup is arcane.[239]

However, one user claims that for a beginner, learning the **abc** system is easier than learning staff notation simply because working out the position of a note on the stave is excluded from the process. Knowledge of note names is sufficient.[240]

One of the big differences between **abc** notation & staff notation is that **abc** is completely linear. Some people have complained of there being no representation of 'ups and downs' in its visual manifestation. It is hard to see the shape of a tune at a glance if you are not accustomed to the notation. On the other hand, some users who never learned to read staff notation have found it comparatively easy to understand at the outset. Several respondents in the survey stated that one of the benefits of **abc** is that you don't have to be able to read staff notation. It could also be a useful tool for non-sighted people.

abc and communication

The next example of a user group is that of a set of private individuals who use **abc** to communicate musical information amongst themselves via the internet. These musicians are not gathering information from the net or posting it as a publication, but sending their own material to others by **abc** as a means to an end. This is achieved in the same way that you might send a manuscript through the post as a reference for someone you are playing with in order to save rehearsal time the next time you get together. Kate Ross gives an example of how she uses **abc** in this way:

> All the members of the band have **abc** and they E-mail tunes to me. I'm currently working with a guy in Ireland on a project but we've only managed to meet up twice. He E-mails tunes to me and I load them into the program and learn them that

---

[238]Kate Ross in conversation with the author 29.1.02
[239]Paul Burgess: ITTM Survey 2001
[240] Phil Taylor, from the abcusers list 5.6.02

127

way. It's like an *E-notepad* that you can just scribble down ideas and send them - it's neat, quick and easy.[241]

Some individuals are now so fluent at reading and writing the **abc** language that it has become the easiest way of expressing their creative ideas. 'It's a quick way of getting ideas down - it's like using manuscript' says one respondent.[242]

Transmission and Reception in a Contemporary Environment: Some Conclusions

The **abc** system deserves more analysis as its development has a major role in the profile of traditional music on the internet. Whether they understand **abc** notation or not, players today can gain access to a common resource of tunes much more easily than in previous eras, and this may have a huge impact on transmission and reception in years to come. However, before embarking on an evaluation of the **abc** system by traditional musicians I would like to present some conclusions on transmission and reception in practice up to this point.

In a broad sense, transmission and reception require the shared experiences that occur in particular social settings, a common repertoire and a live environment to enable oral practices to be regenerated in our current cultural climate. The oral tradition is supported by a variety of notations, teaching practices and technologies, as it has been for several centuries. The acts of transmission and reception encompass a great many processes with a diversity of functions. In one lifetime, every practitioner of traditional music, from the beginner to the expert, will have used a selection of different methods for both learning and passing on knowledge, and each person's experience will be unique to them.

Often the form that transmission takes, or the way it has developed, dictates the way knowledge is received. Notation, for example, has for some time been a powerful medium in learning material and preserving repertories. Different systems of notation are developed for different contexts and instrumental traditions. The differences are practical as well as historical. In terms of learning the repertoire, for instance, pipers have developed notation that suits the learning environment and the nature of the material with its complex ornamentation. **abc** is useful for those who wish to access and learn tunes from a database and is flexible in the sense that it is easy for the receiver to convert it to the format they

---

[241]Kate Ross in conversation with the author 29.1.02
[242]ITTM Survey 2001

desire. In teaching situations, instructors and learners use a variety of notations from staff notation and **abc** to individual shorthands tailored to the individual.

Tunebooks (printed collections), electronic databases and individual manuscript collections function as a resource and an aide-mémoire for repertoires. Very little notation used by traditional musicians is prescriptive. Learning from notation has for some time been accepted as a supplementary method to maintaining an oral repertoire as a preliminary stage to memorisation and live performance. Although the use of notation is widespread, there is an awareness amongst musicians that the processes involved in playing music by ear and playing from written music are quite distinct from one another. Despite the fact that the level of musical literacy is high it is significant that the reading of notation is kept separate from performance on the whole. The music 'is created and transmitted in performance and carried and preserved in the memory, a tradition which is essentially independent of writing and print'.[243]

Learning material aurally live through exposure requires picking up material directly in a social setting. Contemporary pub sessions remain the main context where live interaction can take place. Our modern transport system means it is easy for enthusiasts to travel fairly long distances to meet up with other players at festivals, courses and musical get-togethers. On the other hand, those wishing to keep up with the repertoire of a place they have moved away from are known to have organised sessions for members of their home communities, like the Shetland music session that takes place in Edinburgh. My findings show that transmission and reception aurally through exposure is still very common, despite increased access to notation and recordings. It highlights the importance of the social setting in maintaining cultural practices.

TV and radio have contributed to the reception of traditional material for over half a century, and recordings for even longer. **abc** is also useful for those who desire an aural version of the file. A wider platform for transmittance means a diverse range of material is exposed, and musicians may listen to a great many recordings. In addition to this, the internet may have raised again the fear that regional identities could be eroded on a global platform. However, despite the increased level of exposure through broadcasts, web-broadcasts and recordings generally, traditional musicians seem to be fairly discriminating in what they choose to learn. Ordinary musicians see the benefits of adhering to one

---

[243]Irish Traditional Music Archive http://www.itma.ie/home/leafla.htm 29.4.02

regional style, which is promoted both by event organisers and ordinary session players alike within communities. A common repertoire means musicians can participate at sessions on a local level. If these players were to select a large diversity of tunes from the globally available repertoire they would not have enough material in common with their fellow musicians to share on their regular music-making evenings. For semi-professional players that are 'concert' performers, it is to their advantage from a marketing standpoint to promote a particular regional flavour. This indicates a kind of self-regulating system of selection that comes about as a result of live interaction.

In relation to the development of playing styles, increased exposure through the media has led to some developments in performance. Playing techniques, including many extended techniques borrowed from other styles of music, have developed in traditional music in recent times to include, for example, flutter-tonguing, made popular by flute players such as Brian Finnegan and Michael McGoldrick. However, others techniques have gone out of fashion, such as the use of scordatura, which may be partially due to a lack of recordings in this playing style. Rose Rosengard Subotnik suggests that in oral traditions constant changes are not only unavoidable, but are encouraged because an ability to use variations has always been considered valuable.[244] There is definitely a sense that musicians are moving on and developing the music from one generation to the next.

When music is taught, the role of those receiving information can shift from active learning to a more passive approach that is a long way from the autodidact who learns through exposure. However, learning in a formal way does have the advantage of providing an interactive setting for verbal dialogue and technical explanation. The drawback is that if live exposure to social music-making settings is lacking, the information received only shows part of the whole picture.

Because of cultural conditioning, receiving knowledge in a taught environment tends to create a hierarchical dialogue between teacher and learner. Learners may be more inclined to think there is a right and a wrong way of doing things, and tend to do what the teacher tells them, however much he or she may encourage them otherwise. A desire to conform may make it difficult for learners in groups to enter into a state where they feel comfortable with their own individualistic behaviour. Learners, as well as attending

---

[244] Subotnik, Rose Rosengard: *De Constructive Variations: Music and Reason in Western Society* (Minneapolis & London; University of Minnesota Press, 1996) p72

classes, should be encouraged to immerse themselves in the tradition by listening and watching in live settings where the music is being practised. Witnessing informal sessions is more useful in this context than going to a concert-style performance. Seeing how experienced players interact in an informal setting gives a good indication of how much, and what type of information is transmitted and received in that setting as opposed to the classroom. It will also become apparent which cultural practices are valued most within that setting. For example, a player may have a scratchy tone, but be highly respected for his fantastic repertoire of tunes.

Keeping a repertoire in circulation is dependant on memorisation. This is as important today as it always has been. For traditional musicians, knowledge based on the experience of playing from memory has a higher status than knowledge based on notated representations. As already stated, use of notation and live performance are kept separate on the whole. With a memorised repertoire the power of recall has to be highly advanced. Being able to store vast quantities of material in the memory is a valued resource in traditional music communities. Some musicians like Aonghas Grant have around 3,000 - 5,000 tunes stored by heart. Having a highly developed and speedy system of memorisation and recall means that the way traditional musicians perceive music in their sound world is different to those who rely on the printed sheet. Aonghas Grant says he knows some players who 'can't play six notes without music [notation]'[245] saying one can depend on it too much. For a traditional musician, a tune must be internalised first i.e. it must be sounded repeatedly until it can be sung in the head away from the notation. Only then can the tune be transformed into kinetic memory.

Aonghas did not begin to learn to read music until he was in his late forties. When discussing the contrast between learning a tune from notation and learning one by ear he said:

> I can never play a tune until I have it inside me. While I seldom forget a tune I have learned by ear, I often forget one I have taken off the printed page . . . I have noticed over my years teaching that pupils that are quick at reading music are not so good at picking up a tune by ear.[246]

---

[245] Aonghas Grant in conversation with the author 3.4.00
[246] Ibid.

Traditionally, musicians like Aonghas had a role in their immediate community - to provide the music for weddings etc. In his case he was saturated in the music before he began to play.[247] His father and uncles played fiddle and pipe tunes and sang Gaelic airs. Traditional communities like the one Aonghas grew up in are gradually breaking down, and he has had to adapt his role as a musician in subtle ways in order to maintain a position alongside his younger contemporaries. He felt that in order to keep up with the practices of today he had to learn to read staff notation. The recent increase in teaching programmes has led to a change in the status of musicians like Aonghas, who teach orally. He is currently a tutor on the degree course in Traditional Music at the Royal Scottish Academy of Music in Glasgow. Many of today's older players have gained increasing respect as the traditional music community in general becomes increasingly aware of how important these people are as bearers of a wealth of valuable internalised knowledge. Aonghas is highly respected for his technical skill and as an exponent of a specific regional style along with his ability to store a huge memorised repertoire.

A consensus of musical information is regulated in the live traditional music community through a sharing of experiences. What this means in practice is that a network of new ideas and news is in constant operation, disseminating the latest information on a variety of topics. To actively participate it is useful to know who's who in the traditional music world, as well as being aware of the latest developments in instruments, or who is composing the latest tunes. To expand upon this, at a lecture in Edinburgh Chicago fiddler Liz Carroll constantly referred to other players and their material.[248] She made many historical and geographical references and talked about different fiddling techniques. In one hour she mentioned twelve individual fiddlers, three albums of fiddle music, demonstrated features of four tunes and mentioned five others. She also referred to two bands, four regional fiddle styles - Cape Breton, Donegal, Kerry and West Highland Scots - and other historical information to do with the establishing of the Irish community in Chicago.

A likely scenario is that subsequently at least one of those leads was followed up by every person in attendance (approximately150). Hypothetically, one person may have followed up leads on a certain player they liked the sound of. Another may have tried to find recordings of a tune Liz Carroll mentioned in order to learn it. A third may have attempted

---

[247] Aonghas Grant in conversation with the author 3.4.00
[248] Liz Carroll: 'My Musical Journey' (Edinburgh; *Fiddle 2001* Festival, 24.11.01)

to improve his or her technique by learning to execute a particular ornament she demonstrated. For another player Liz may have sparked an interest in the fiddling style of Cape Breton, and so on. From this example it is possible to appreciate how the network of information can function within the community.

One aspect of online interaction that reflects this to a great degree is that of links, and the kinds of sites already mentioned in this section are easily navigable by net surfers as a result. These online facilities and features mirror routes of communication already established in the live community, like the examples in Liz Carroll's lecture. It is possible for traditional musicians to navigate their way around the network picking and choosing the leads they personally wish to follow. Every musician using the internet follows their own path in a non-prescriptive way, similar to that of an individual in the live community - choosing their own repertoire, instrument, style etc. These two ways of information-sharing – live and online - are not mutually exclusive. To a great extent musicians using online facilities will be supplementing their information with live musical experiences.

To sum up, transmission and reception involve a multitude of processes, but social interaction for all participants remains a key element of developing a common repertoire with others in the musician's immediate community of players. Despite access to a vast pool of source material players still need to have a common link with others around them. In order to participate in social music-making players must not only learn the repertoire but also the conventions of live performance, whether it is at a session, for dancing or in a concert, and very little of this information is available in books. The only way in which it can be absorbed and understood is by being present at or participating in live events. This knowledge constitutes a large part of traditional music culture. Once one has received knowledge, one becomes a transmitter and it is assumed that every player will give back to the community what they have taken from it. In this way the repertoire and cultural practices continue to circulate.

To end this section I have included the following anecdote from my own experience that traces one tune as it was passed around between players. This is intended to give an idea of how the processes of transmission and reception can work in a contemporary context. It will become apparent how quickly and on what scale traditional material is dispersed and by what means.

133

A piping friend based in the south west of England picked up a pipe reel from the internet that appealed to him eighteen months ago. He printed it out in staff notation from an **abc** file, memorised it, then played it to me at a pub session. I took a liking to the tune and he taught it to me by ear. I have since included it in sets of reels that I have performed live at sessions and for dance gigs. The tune is entitled *Andy Renwick's Ferret* and was written by Scots piper Gordon Duncan. As I played it at sessions it was picked up by other musicians who took it around the sessions themselves. At one session I met a young melodeon player from Dorset who recognised the tune and joined in as I started playing it. He had learned it from a non-commercial recording by some friends of his, a young Scottish band, who performed it regularly. When I went to Scotland later in the month I found it was a popular session tune both in Glasgow and Edinburgh.

The internet supplied me with information relating to Gordon Duncan's recorded output including various bands he has been involved with in Scotland. He is a respected piper in his community and a prolific composer of tunes. Since learning the tune I have heard several other highland pipers speak of his tune-writing abilities with great respect. I have heard *Andy Renwick's Ferret* being played by various artists both on commercial recordings and in a concert setting. I have also made a point of seeking out other tunes by Gordon that can be found in several locations from *The Nineties Collection* to his own albums.[249]

---

[249] Lewis, Lindsay: National organiser of the 'Traditional Music and Song Association of Scotland' in *The Nineties Collection*, Ed. Ian Hardie (Edinburgh; Canongate Books Ltd, 1995)

4 User Evaluation of the abc System

Having constructed a picture of **abc**, its uses and its users, it is important to mention some of the issues that have arisen as a direct result of its status as an online facility and the impact this is having on the community as a whole. Some of the concerns expressed by respondents during the survey demand a deeper level of discussion.

In research on traditional music the interest in new technologies by traditional players has often been played down. It has been expedient for the mainstream music industry to portray traditional musicians as removed from the forefront of technological advancement. However, the image of a technophobic musical community just does not stand up to scrutiny. My research has shown that many musicians are highly technologically aware and could even be said to be pioneers in the context of shifting transmission of their music to an online environment in comparison with other genres of music. However, I also found that some were resistant to this new platform for transmission and reception.

On an ideological level, values may predispose a musical culture to using certain technologies over others. Specific uses or rejection of particular forms of technology often define the aesthetics and politics of genre types. Users must also be able to justify their relationship with particular technologies to the rest of the community.

In this case, the use of technology is directly related to the concept of music being a communal activity, not to the relationship between product and consumer. In the main, the way the traditional music community uses technology is not as a tool for production and consumption but as a conduit through which the music can flow and be passed on. Technologies that promote and support transmission through an oral system are encouraged, for example. This use is culturally specific in the sense that other genres of music do not use the same technologies for the same purposes.

Experiments in the use of new technologies have always taken place (from the introduction of notation, new instrument designs, the use of pick-ups and so on) and still suffer criticism from purists.

Technology tends to be either glorified by its users or vilified as a corrupting force.[250]

The historically and socially constructed concept suggests that the use of technology in music tends to be seen as representing a conflict between live and non-live musical events. Use of technology in traditional music has certainly never been glorified. It cannot be denied, however, that use of technology mediates transmission and recording practices that are linked with the reproduction and distribution of traditional music.

In the context of recording there is a tendency amongst traditional musicians to obscure the use of technology. The majority of traditional recording artists choose to present a virtual representation of live acoustic performance for the listener with no reference to the technology used in production. In reality compilation of instrumental and vocal parts, multi-tracking, the addition of effects, mixing and so on are used. This style of production perpetuates the myth of traditional music being pure, untainted by modern technology. The exceptions are groups like Shooglenifty. These players flaunt the use of technology and studio techniques in the production of their recorded works whilst maintaining traditional technical skills in their playing.

The domain of technological advancement has developed in line with market forces for the production of commodities. The development of products in a commodity-based economy perpetuates the market. Manufacturers are motivated by profit to continue developing new production equipment for music. 'Design characteristics subject to capitalist modes of production structure specific musical or cultural practices.'[251] However, if one sector of the market uses those products as a conduit for the transmission of their own music and not as the manufacturers intended then in some way the market economy is bypassed and the specific use of technology by a minority goes unnoticed.

In some areas, like the development of pick-ups and instrument design for non-electric instruments, the market is so specific and subject to individual taste that it does not have a noticeable impact on the whole economy. In terms of recording, the uses of technology are swallowed up by the greater commodity-based sector of the economy and go relatively unnoticed as a minority market. Technologies that are used for transmission tend to be

---

[250] Théberge, Paul: 'Technology' in *Key Terms in Popular Music & Culture*
Eds. Bruce Horner & Thomas Swiss (Oxford; Blackwell Publishers Ltd. 1999) p209
[251] Ibid. p217

invisible because they do not count in a commodity-based economic environment. No product is being bought or sold. Only information is being transferred.

Traditional musicians tend to have a more circumspect attitude towards technology than pop musicians generally. Because their music is not dependent for success on rapidly changing trends in musical style they can stand back and consider their effectiveness before adopting them without pressure from market forces. Only then will they appropriate resources that are useful and relevant to their practice. The use of technology is practice-led rather than market-led.

The introduction of a technologically new means of transmitting material has become the focus for a re-evaluation of cultural practices within the community. Examining the impact of this new technology exposes the cultural practices and attitudes of traditional musicians in the C21st in a wider sense. It could be that a polarisation of opinion is emerging between those whose moral stance is in keeping to traditional oral forms of transmission and those who see the future in transmission of all kinds, including the internet. On the other hand it could be that a diversity of opinion over the use of technology has been accepted ever since traditional music was first exposed to technological advances such as notation or audio and video recording.

By looking at the following categories listing the pros and cons of the **abc** system (as perceived by both users and non-users) it is possible to see some common patterns of thought emerging.

Benefits

First of all it must be stated that 45% of those who did *not* use **abc** had no reservations about the system. Of all the respondents who took part in the survey, whether they used **abc** or not, two thirds approved of **abc** in principle as a form of transmitting traditional music. To begin with I would like to indicate here the benefits of **abc** in the words of all respondents to the survey.[252]

---

[252]ITTM Survey 2001

Accessibility

The benefits are the accessibility, which makes finding and learning tunes easier.

It enables a 'global' music community to swap tunes with people all over the world. It is therefore perfect for small-scale composers [i.e. tune writers].

With **abc** you have the ability to learn tunes with friends & colleagues who are based apart and unable to meet for regular practice.

The best way [to find material] is *J.C.'s tunefinder*, a web-based **abc** search & correct program that enables users to download files as MIDI, Gif etc. formats.

Tunes can be simply e-mailed.

abc helps remote learners.

With **abc** there is the fast interchange of material.

An archiving facility

The benefits of **abc** for the community are as a common archive format for storage & exchange.

Tunes and their titles can be easily found.

There is a greater range of online material and ease of accessing tunes.

A way of producing notation

abc is handy for getting notation of tunes I want to learn.

A method of oral transmission for non-readers

The benefits are that it can be used by folk who don't read dots.

Lots of people work primarily with the **abc** itself, and rather rarely print out the sheet music. Quite a lot of them don't read music very well and use **abc** as a way of acquiring new tunes.

What is good is the ability to get tunes played on the computer, hearing them rather than having to rely on reading.

The benefits of **abc** are tune transmission, particularly for the non literate i.e. the ability to *play* the tune to learn by ear - it also helps associate sound with written notes & has helped me (inadvertently) to read music better.

138

abc files are very small - suitable for storage & transmission.

The benefits of abc are its ease of transfer - text not image.

abc is a simple, compact format, readable by humans. The way it developed is good - if a committee had to come up with a system it would be too unwieldy.

Problems associated with the use of abc

On the other hand, not all abc users thought it was a good idea. 7% of them had reservations. The main problems with the system that abc *users* had were in their words (in order of priority according to the survey):

Technical problems

The problems of abc are the lack of authoritative advice on which program does what. Reasonably advanced computer literacy is required. abc2win can only do one line.

The abc homepage has not been updated in four years. The newsgroup is arcane.

Most programs will do most of it. None (that I've found) will do it all.

I haven't tried very recently but *abc4macs* never worked & *Barfly* often crashed or tunes had to be edited that had been produced in windows in order for them to display or play correctly.

In my experience the audio off is very primitive, as is the staff notation print-out, so it necessitates learning to read/write that format if it's to be played directly or sent to someone. Some people seem to take to it very readily but I'm much happier reading a score & have downloaded quite a lot of tunes in various graphics formats. Low resolution MP3s seem to be the best for just sending audio.

In Village Music Project transcription of English fiddle music MS [manuscripts] there has been a problem with conventional musical symbols for decoration - abc only allows the cadence ~ for turn/roll but many old manuscripts include others e.g. tr (trill) and vv (mordant). These can't be transcribed. Also, more space & more easily accessible for 'editorial' comments etc.

Traditional music needs to be transmitted orally - if not, the style goes. In the same way that, say, regional Irish styles are submerged by a 'corporate' session style. With **abc**, as with any notation, it's only telling a small part of the story.

abc is just another way of passing material around with the same problems as other forms of notational methods. I think style is one thing you can't get from **abc**s or books the way you can live & to a certain extent from recordings. Only from live transmission can you really get style so you can ask, see, hear where, when, how much variation is acceptable.

My general example is Swedish 'polskas' where it is almost impossible to learn these from written sources although a written source is a good aide-mémoire.

Some pipe tunes are not written in staff notation how they sound - not even the pitch - as much as other instruments. The **abc** notation is copied using staff notation as a basic, so any difficulties with that are transferred to **abc**, though you can use the fields to give details of modes. In other words, you have to be quite knowledgeable to get something worthwhile from it.

The general disadvantage of all written sources with respect to folk music - how 'faithful' is the transcribed version!

The problems may be a mechanisation of a tradition, which has survived for centuries on word of mouth. It could weaken the tradition.

The problems are that it is too simplified. It is hard to show the 'character' of a tune. A system of transmission on the net would be good if it could show 'character', but I doubt it - yet! Transmission is best done through the ear to the heart.

Difficulties with writing the notation

The problems are that the quality of some tune versions posted on the net is suspect and could lead to the promotion of 'bad' versions.

There was/is apparently no completely agreed programming standard.

The versions of the tunes are variable depending on the person transcribing - some are good others are basic.

The problems are that you have to be fluent in writing in that format.

abc is a success story - a prolific number of amateur musicians use it and there is now a vast amount of material. But there is no quality control. People can put in anything and I've seen some very bad **abc** files . . . People are not careful about how they write things down. Some are not careful about sourcing material.

I don't think there's anything wrong with internet transmission but the issue of copyright is always looming, though I don't think it would affect grassroots session players & amateur enthusiasts or most semi-professionals.

Difficulties with learning the system

The problems are that there is quite a steep learning curve to learn the notation at first.

I think it's best kept simple - most people who are going to use it understand the genre anyway - it's not for people who don't know the music. I'm a good staff notation reader but I'm quite slow at **abcs** because there is no representation of ups and downs on the page. Also with chords there is too much information in a horizontal line & that gets in the way of sorting out what the basic tune is.

abc is good for people who 1) are very experienced in the use of a computer 2) who can do the necessary intellectual abstractions in their mind and type in the tune at the same time 3) who use sheet music – both reading and writing.

Only suited to a melody-based musical system

abc is lousy for keyboard music.

In contrast to staff notation, **abc** was specifically devised for notating the melodic aspects of traditional music. It is now being picked up by classical musicians (early music scholars in particular) as a means of archiving material on the internet. There are drawbacks for scholars using the **abc** system for a genre of music for which it was not designed. There are also drawbacks with notating Canntaireachd because of the complicated system of ornamentation.

Real technical difficulties with the **abc** system only seem to occur when musicians go into the system in more depth than the average player does - to notate anything that is not a melody e.g. chords, part playing and so on.

Possible Costs Incurred to the Community and Reservations surrounding the Use of abc

I use the term *costs* here to represent not a price paid in monetary terms, but a possible loss, suffering or sacrifice at the expense of something more valuable. This term was the only one I could come up with that adequately described the strong opinions and concerns expressed by respondents on the subject.

45% of non-**abc** users had strong objections to the system. There follows a selection of comments in their words (beginners and professionals alike) that highlight their fears and reservations about **abc**.[253]

Integrity and fears of misinterpretation

> Traditional music is best transmitted orally. Standard notation is second best but has limited ability to convey nuances, especially timing e.g. snaps.

> The benefits of **abc** could be wider access of material, although I have reservations about the lack of context and / or contact with traditional players and their tradition, from where the song / tune originates. Style would suffer, and traditions would break down even further.

> I think it is hard to embody the spirit of this genre in a notated version as it is the composite of each player's version of the tune that actually constitutes the essence of it. Good 'average' notated versions can provide a good record and / or standard as a starting point.

> Care should be taken by the individual transmitting the tune to ensure that any or all variations of a tune or different parts thereof should be included.

Dependence on visual rather than oral learning

> I don't currently use a notation system for transmitting / learning traditional music. I play by ear.

> I don't think it should be used to learn tunes you have not heard. A lot of traditional music is not played exactly according to the notes/rhythms written. Whilst the tunes (notes) themselves may be passed on, the *notation* cannot. Tunes should be learned by ear.

> **abc** is OK as long as it doesn't put the dampers on the oral tradition or if it discourages people to go out. It should be viewed with caution. I can't think of any particular benefit **abc** would have.

> Too many people with a standard music education like myself are chained to learning music visually and have to re-learn to listen. Things are starting to change but **abc** is a backward step!

Fear of standardisation

> Whether traditional staff notation or **abc**, committing traditional music to paper is useful only for preserving the idea of the tune. Traditional tunes ought to be passed orally as **a)** once a tune is committed to paper it becomes seen as the definitive way to play that tune **b)** the issue of naming a tune. Both of these have the cumulative effect of standardising traditional tunes. Regionalised versions of tunes and styles of play are lost.

---

[253]ITTM Survey, 2001

I tend to see notation systems in general as a form of archive medium as no notation can ever represent more than a template or an example version. Tunes for me exist in the aural memory, and that's mostly how I learn them, with occasional reference to a book.

Tunes should be written out without any ornamentation as this should be left to the individual player.

If I may draw attention to a very well known but relatively simple Irish tune named *The Kid on the Mountain*. If you can obtain the version played by Seamus Ennis and compare it with the version played by the Bothy Band, you will notice that the Bothy Band version has an extra part. Due to the fact that more people have heard the Bothy Band version, this has become the accepted standard in the main. Subsequently, when I play the tune (the Ennis version) I get quizzical looks from others. But who is right?

Too steep a learning curve

I don't think I'll investigate **abc** because of the time involved in learning it.

abc does not offer visual information in the way standard notation does, and it's a new system to learn. It does not strike me as very intuitive to read.

Learning **abc** is not something that can be done quickly, though in my opinion it would probably be easier to learn the system from scratch than to learn staff notation. It is, of course, possible to learn the notation side of the system away from the computer. There is the mistaken assumption that musicians must have a certain degree of computer literacy. Apart from a few teachers at the Adult Learning Project in Edinburgh teaching it as a first notation, I have not come across anyone learning it away from the platform of the computer. This could be a way to spread its use, separating the two zones of offline and online use that confuse the whole issue.

abc is superfluous

I can read staff notation well, and pick up tunes by ear so feel there's no need for *me* to learn another system - I've nothing against it *per se*.

Most traditional tunes are available in books, so would I personally bother?

I already have access to sufficient traditional music sources.

The issues that drew the most heated responses were generally those that concerned all members of the community, whether they used **abc** or not. Top of the list came the issue of maintaining the integrity of the music. This includes fears to do with authenticity, the visual versus the oral, misinterpretation and standardisation of the music. The key to this in connection with **abc** is that unlike commercial recording and publishing industries the music is being curated by those solely from within the tradition itself.

It is significant that the group of non-**abc** users contains the professional traditional musicians, all of who have strong reservations about of the use of **abc** and transmitting traditional music on the internet generally. Some of these musicians feel they can speak with great authority on the subject, a significant number having recently graduated from traditional music courses at degree level. All had been involved with traditional music most of their lives and often their parents were musicians. The following quote from a Scottish musician is a typical response.

> Having studied traditional music at degree level, I am highly aware of the importance of context, and authenticity. I am not a fan of musicians / singers taking material from other traditions of which they may have little knowledge regarding the social / contextual basis for material (e.g. as a dance tune / work song) or any legitimate link with that tradition (e.g. family member / fellow band member who is based in a particular tradition bringing such material to the group). My own band has re-examined its repertoire for these reasons. Authenticity and context / belonging to a tradition is the key to preventing traditional musics becoming world musics, something which Irish music has become in some senses.[254]

One conclusion that can be drawn is that the small group of musicians who consider themselves professional traditional musicians is more conscientious about using traditional methods of oral transmission. They may be more engaged with the music than amateurs & semi-professionals and therefore feel a duty to develop a greater sense of integrity about their work. They may also feel pressure from the more conservative elements within their own community to preserve the tradition in the way it was passed on to them. They may have a negative attitude to the use of new technology that has been culturally reinforced. In their state of curatorship, they appear to feel a deep responsibility for their musical heritage. Ironically, the state of professionalism amongst traditional musicians is also considered by some to be threatening traditional values within the community.

Another main issue is not so much the method of transmission that **abc** offers but the fact that it is possible to pick and choose material from anywhere in the world, whatever the context, whoever you are. The fear of music becoming 'global' rather than regional highlights a split within the community. To some musicians, 'traditional' music is defined as that music which can be passed on from one generation to another within a specific localised geographical location. Once the music is set within a global arena, that defining

---

[254] Steve Byrne: ITTM Survey 2001

feature would have been removed, rendering it no longer traditional. This view, which polarises regional and global styles of music, represents one extreme end of the argument.

One interviewee typifies those musicians who take this standpoint. Paul Bradley from Armagh in Northern Ireland says he now only likes to learn tunes by ear from other players as a matter of principle. It means he learns fewer tunes but they are all personal to him and refer directly to his local area. He does not like people to record him at sessions as he feels that they would be robbing the traditions of his community and not giving anything in return. The very idea of transmitting tunes around the world via the internet was anathema to his whole way of working.

At the other extreme are those who believe that the global transmission of traditional music can be beneficial to the traditional music community as a whole. It can link dispersed communities in an immediate sense in a way that has not previously been possible. Some argue that global transmission is more likely to lead to a celebration of diversity than to have a negatively 'homogenising' effect. Some even see homogenisation as a good thing. The actuality seems to be that all these scenarios occur.

The conflict between visual and oral methods of transmission is really an issue of live versus virtual methods in this case. Negative associations with other notations cloud the **abc** argument because musicians who do not use the **abc** system are ignorant of its aural capabilities in an online environment. It is possible to generate an audio version of an **abc** file, but as mentioned previously it is only a 'virtual' rendition. It almost does not bear comparison with the interaction that is possible with a live player.

In some ways, therefore, the complaint is valid because the melody heard is not the rendition of a live performer. Being able to see where a player puts his or her fingers, when they take a breath, how they hold their instrument, and so on is an important visual aspect of live transmission. **abc** as a new form of notation contains no more visual information than any other form of notation. Seeing a musician perform has a much higher value amongst traditional musicians than following a representation of the notes that they are playing from a screen or piece of paper.

Most traditional musicians would not take their manuscript collections of tunes (if they possessed one at all) to a session. They would memorise a tune prior to its first public

145

exposure. Learning a tune by ear is infinitely more preferable to learning one from a book in the eyes of most musicians. I have already quoted Caoimhin MacAoidh's comments on the desired supremacy of ear over eye, an opinion that embodies the sentiments of many traditional musicians.

Misinterpretation of the musical information contained in **abc** files is another fear that has been expressed by some musicians. This, however, is mainly a worry of newcomers to traditional music. I mentioned previously that a prior understanding of the genre is necessary in order to be able to interpret **abc** correctly. A confident player with a lot of experience is not likely to have a problem with this particular issue.

Standardisation, however, is an issue that, again, concerns *all* traditional musicians. **abc** is no different than other forms of transmission in the sense that as soon as a snapshot version of a tune exists, whether it be a sound recording or a notation, the possibility that that will become the 'definitive' version comes into being. Having said that, the curators of the **abc** system, being traditional musicians themselves, are very much aware of the dangers of standardisation. Every effort is made when compiling archives and writing **abc** files to list the source in the header and to make it apparent to musicians when searching for a particular tune that there are several different versions.

What motivates people to learn **abc**? There must be something implicitly alluring about its concept. In the main, musicians become **abc** users if they already use computers as a platform for other activities. They become aware of the possibilities **abc** has to offer in terms of small file sizes, increased access to material and ease and speed of transmission. That seems to provide the incentive for them to embark on the learning curve that is required for them to benefit. The novelty value of the whole concept must also be a factor. I have even heard of a traditional musician with a palm-top computer with an **abc** program installed that means he can input, E-mail or play traditional tunes as **abc** files wherever he goes. It is the latest designer toy for young folkies.

The danger that the use of **abc** as an elitist tool may subvert other methods of transmission is, I believe, unfounded. There has always been a choice as to how musical material is passed around, and the right to choose the method most convenient for each individual has been, and still is, respected. It is generally understood that live one-to-one transmission is

the foundation of the oral tradition. Anything else, from staff notation and recordings to **abc** is supplementary.

Most importantly, in recent times the recognition of the value of the oral tradition has led contributors and developers of the **abc** system to promote those values in an online environment. On the understanding that users desired access to information, rather than notated products, the **abc** system developed in such a way that is effectively bypassed issues where staff notation would have run into problems such as copyright issues over notated sources. The fact that it can then be converted to staff notation does not affect it. Aside from being more convenient in terms of file size, it is able to perform a function that staff notation may not have been able to do on this platform; to protect the common repertoire from appropriation and enclosure, whilst simultaneously allowing open access and the free exchange of information.

The next chapter will analyse issues such as common property resources in the light of recent developments to do with transmission and reception with particular reference to the use of the internet. Following that, some conclusions will be drawn about the types of change that are occurring in the dialogue between members of the traditional music community.

5 The Dissemination of Traditional Music: Online & Live Practices Examined

In this chapter a more analytical approach is taken towards issues pertaining to the transmission and reception of traditional music (TTM) on the internet such as open access, intellectual property rights, individualism, commodification and common property resources in relation to a gift-sharing economy. The research is based on traditional music in everyday practice. In the previous chapter we saw how it can be simultaneously global and regional, archaic and contemporary. More than ever before, the tradition and its transmission is in a state of flux that makes it difficult to define.

The study of TTM on the internet is a new field. While examining the activities of traditional musicians online we need to take a close look at the developing codes and practices of social interaction specific to that platform. One intended outcome of this research was to discover whether online interaction amongst traditional musicians is likely to alter the relationships and social structures within the community as a whole.

Common Property Theory and TTM

In order to find a model that is best suited to a community such as this one I have looked to the work of Anthony McCann of Limerick University, Eire[255]. His studies of the idiom of Irish traditional music have led him to use aspects of Common Property Theory that has its roots in the discipline of Economics. Anthony McCann hopes this emerging Common Property theory will enable us to see that TTM depends upon an 'as-yet-unarticulated system of gift or sharing' and will help define 'the dynamic processes & power relations which are framed by the social relationships that constitute this system of gift or sharing.'[256] A second key source is the work of Kollock on the gift cycle and online cooperation.[257]

Historically, there is a pattern to the way humans react to technological innovations that are seen to revolutionise society in some way. As with the telegraph system, electricity or aviation the internet has sparked a multitude of hyped up predictions as to its effect on

---

[255]McCann Anthony: 'All that is Not Given is Lost: Traditional Music, Copyright & Common Property' in *Ethnomusicology* vol. 45 no.1 ed. Bruno Nettl (University of Illinois Press; Society for Ethnomusicology, Winter 2001)

[256]Ibid. p89

[257]Kollock Peter: 'The Economies of Online Cooperation: Gifts & Public goods in Cyberspace' in *Communities in Cyberspace*; Eds. Marc Smith & Peter Kollock (London; Routledge, 1999)

human interaction. It has been described as an anarchist's paradise, destroying time and distance; an information superhighway. Opportunists may grasp the chance to gain some kind of commercial advantage; others may see it as a new way of peacefully uniting all the peoples of the world. There is nothing inherently new about the concept of exchanging information over great distances. What *is* new is the technology itself, and the speed at which interaction can take place.

To begin with, some activities such as online shopping are radically different in the way they operate compared with their live equivalents. However, from the outset it is possible to draw parallels between the practices of traditional music transmission both live and in the setting of the internet, diverse as they are, as noted in the previous chapter.

The context is a network of digital information. If we take these individual components it is possible to build a picture of how the whole is constructed. Firstly, musical information is produced and transmitted by a network of traditional musicians. The exchanges are of musical information, not material objects. Producing information digitally means a potentially great number of speedy interchanges.

TTM online operates in a similar way to live transmission. There are some significant differences though, apart from the obvious absence of live interaction. Firstly, with online transmission, the exchange of information can occur much more quickly. Secondly, material transmitted in live transmission can accommodate more variation depending on the circumstances of the interchange. On the internet there is the possibility of producing a potentially infinite number of identical digital copies.

However, there is still a variety of ways that a tune can be received from the internet - from different versions as **abc** notation to Mp3s, as staff notation and Quicktime videos. As we have seen, there is usually a prototypic tune at the outset that is given its character through the individual style of each player, its arrangement and the performance context. This conversion of information to a live event is something that can only happen in a live setting as part of the transmission process. It will happen whether the information is received via an online source or not.

So what distinguishes the way that traditional musical information is represented on the internet? What of the free exchange of material that occurs at sessions and other such live events?

Sociologist Peter Kollock describes how the internet community produces some benefits that can be described as *public goods.*[258] The first criteria of a public good are that one person's consumption of the good does not reduce the amount available to another. **abc** files, JPegs of staff notation and information on sessions for example can often be received online for free by a theoretically enormous number of people. Traditional musical information available on the internet could therefore be described as a public good. Many people can adopt material into their repertoires from the internet, but their consumption does not diminish the availability of that musical material to others.

Another feature of a public good is that it is difficult to exclude any person from benefiting from it. Anyone with access to the internet can receive information, regardless of location. In this sense public goods are non-excludable. These two key features of a public good are present in the variety of activities and interaction that take place online amongst traditional musicians, in particular the **abc** system. Kollock states;

> One person's *consumption* of the information does not diminish another person's use of it. This is a remarkable property of online interaction and unprecedented in the history of human society.[259]

I would concur that the use some members of the community make of this facility does not reduce access to others. However, Kollock seems to be overlooking some of the fundamental properties of TTM in the second part of his statement. There are strong similarities between the online and live practices of interchange of musical ideas. Like a common or shared knowledge that can range from the very mundane (e.g. showing someone how to tie their shoe laces; where the nearest railway station is; the best place to catch fish etc.) to more sophisticated forms of cultural information (e.g. an oral repertoire of music, poetry or dance), these live practices also feature non-excludability and the fact that consumption does not reduce availability of that same information to others.

---

[258]Kollock Peter: 'The Economies of Online Cooperation: Gifts & Public goods in Cyberspace' in *Communities in Cyberspace* p223
[259]Ibid. p225

So what motivates people in the traditional music community to provide these 'goods', and how are these contributions coordinated? There is a very strong precedent for providing 'goods' and contributing to the traditional community. It would therefore seem natural to continue this pre-established cultural practice on the internet where it is ideally suited, considering the nature and characteristics of the online environment. However, it is worth investigating in what ways the benefits and costs of providing the public good of TTM online differ radically to those in a live context. Are musicians' motivations for providing goods and the coordination involved online dynamically different?

Motivations can alter when economic circumstances change. Common knowledge can be converted to intellectual property when the economic system develops to the extent that the information can be commodified. Online interaction enables information to be moved more quickly. Communications systems that increase the speed that information can be carried have been seen to alter the balance of values. Certain information could be common knowledge in one place but a valuable commodity in another. Having a quick and efficient means of getting that information to the place where it is scarce may have benefits for some people.

This change could be seen to threaten traditional values. In general, TTM online is mainly concerned with exchanges that comprise the swapping of tunes, an activity that also exists in abundance in other live formats. They are based on a gift sharing system and the fact that the music could be commodifiable is generally overridden by unspoken rules that have been established for much longer than the internet has been in existence.

However, people involved in commercial enterprises that impart more than tunes, like the online lessons, are taking advantage of the internet's ability to reduce distance. For example, for the American who does not have access to 'real' Irish musicians locally, and those who can provide a virtual substitute, the benefits of the internet are great.

For both parties, however, the benefits differ greatly - for one it is cultural. In the virtual world of the internet a 'natural meeting place is established for those interested with an easy way of distributing information. People can meet, plan and discuss issues without regard to physical location or time.'[260]   For the other the benefit is commercial.

---

[260]Kollock Peter: 'The Economies of Online Cooperation: Gifts & Public goods in Cyberspace' p224

Information that is common local knowledge in Donegal, say, can become a valuable commodity in a place where there is no 'authentic' Irish musical source.

Another change the internet has brought is that for enthusiasts of traditional music it is now *easier* to find out what is happening in the community if you go online. It requires less physical activity and expense in an immediate sense. It is quicker and easier to get hold of information. This increased ease in gaining information could lead to complacency. Musicians may be lured away from live settings for transmission in favour of virtual ones. However, it must be reiterated that information gathering is only one element of transmission. For most traditional musicians it is the two way participatory process in a live setting that is important. It is therefore unlikely that virtual transmission can ever replace the social benefits that are gained through live interaction.

TTM in a Global Economy

Moving on, there are fears amongst those involved with music and culture generally that as a result of globalisation a homogenising or hybridising effect can occur, which in turn may suppress diversity. The structures that regulate our global economy could damage local economic structures. In the commercial arena some believe that a multiplication of choice is leading to a fragmentation of audiences. For oral traditions it is important to be aware of the effects that intellectual property application and individualism can have on traditional practices. Increasing professionalism distances some players from the origins of their practice, and the conversion of traditional events such as the session to a cultural tourist attraction rather than a functional social environment can be extremely damaging on a local level.

Others say globalisation encourages a tolerance of diversity. The internet can provide an equal service to anyone who has access to it. Computer music production is said by some to be democratising and the term *publishing* is being re-defined and can have benefits for musical sub-cultures. The effects of these changes on relationships within the community, and ultimately transmission itself, must be monitored.

Having said that, globalisation is nothing new. Tom Standage compares the internet with the Victorian telegraph system thus:

The hype, scepticism and bewilderment associated with the Internet mirror precisely the hopes, fears and misunderstandings inspired by the telegraph. Indeed they are only to be expected. They are the direct consequences of human nature, rather than technology.[261]

Standage believes that looking at society's reactions to the Victorian telegraph system can give us a perspective from which to examine people's fears and hopes for the internet.[262] Because the technology of the internet is relatively new, people are more likely to have concerns about how it may change previous modes of practice. It is a fear of the unknown.

In the past, the biggest changes to TTM came in the form of the breakdown of social systems due to massed emigration and systematic repression of traditional customs. Other big changes came about through the introduction of new instruments and tuning systems from outside the musical system. The introduction of new technologies such as staff notation and recording had relatively little impact on TTM. As a new technology, there are many features of the internet that are simply a virtual extension of existing phenomena and as such it could pose less of a threat than changes in socio-economic values.

In most current writings to do with music and globalisation, the main concerns are economic, centred around the transmission of scores and physical sound recordings. This can lead to individualistic demands for the control of intellectual property and copyright.

Traditional music is different from other western musical cultures because, as we have seen, its processes of gift-exchange often fall outside conventional economic laws. As a result of its different economic nature, benefits and disadvantages in an online environment for traditional musicians cannot be compared with those of music industry corporations, and many of the questions to do with the globalisation of traditional music need to be qualified.

For instance, the benefits to the music industry generally of increased diversity, access to information and democratisation do not necessarily benefit the traditional music communities. Many traditional musicians prefer to keep TTM on a local level controlled via long established social structures. The fear amongst some traditional musicians that globalisation places music in contexts for which it was not intended, reducing the cultural value of the music for its original exponents, is of no concern to the music industry.

---

[261]Standage, Tom: *The Victorian Internet* (London; Pheonix, 1998) p199
[262]Ibid. p2

On the other hand, the global transmission of traditional musical material online by means of **abc** avoids many of the issues that so complicate the downloading of commercial music in the music industry arena. This is because in traditional music generally there tends to be less of a division between audiences and practitioners. Music transmitted by **abc** is to be *played* rather than *listened to*. **abc** transmits information, not a product, and as a musical language rather than just a notation system, it is less subject to the publishing laws that affect staff notation.

There is evidence to suggest that despite the global nature of the online network, many traditional musicians who use the internet use it in support of and in conjunction with the activities of their local community. The Village Music Project, the teachers involved with Edinburgh's Adult Learning Project and Massif Village Orchestra Projects mentioned in the previous chapter are just some examples amongst many that support this assertion. Diversity if anything is being encouraged rather than suppressed.

At this point it would be helpful to compare the gift-cycle culture with a commodity exchange system in more depth in order to better understand the difficulties that are presented when the two systems collide.

> In societies of the gift, gift relations are oriented to the mobilisation and command of *labour*, while in capitalist societies commodity relations generally have been oriented to the mobilisation and command of *objects.*[263]

Internet transmission is oriented to the mobilisation of information. The whole system of transmission both on and off line enables musicians to have access to a resource and to maintain it while regeneration occurs. It works by a process of 'gift-sharing'. The music is circulated around the community, but there is no contract involved. People offer up material to others and expect at some point in the future to be reciprocated - not necessarily from the same source directly. It is, in anthropological terms, a *gift-cycle* system of exchange that has its roots in *abundance* rather than scarcity of goods. In the traditional music of Scotland & Ireland there is a huge resource of musical material. An analysis of hacker culture on the internet implies a similar ideology.

---

[263]James Carrier cited in Kollock, P: 'The Economies of Online Cooperation: Gifts & Public goods in Cyberspace' p224

154

Examined in this way, it is quite clear that the society of open-source hackers is in fact a gift-culture. Within it there is no shortage of the 'survival necessities'- disk space, network bandwidth, computing power. Software is freely shared. This abundance creates a situation in which the only available measure of competitive success is reputation among one's peers.[264]

Members of the musical community who participate in the gift-sharing system of exchange are part of what Kollock describes as an ongoing interdependent relationship. This, he claims, leads to improved 'technology of social relations'.[265] This type of exchange is embodied in the kind of interaction that takes place at sessions. It also takes place online amongst hackers and like-minded groups of musicians alike - those who use **abc**, for example.

On the other hand, the relationship between a musician and group of musicians and a promoter, retainer, record company in a commodity transaction is such that the relationship could end at any time. It need not be *ongoing*. It is only interdependent as long as contractual obligations last. Being a professional player has a different status in the community. These players are more likely to be involved in commodity transactions and related issues such as contracts and copyright. They may still attend sessions and retain their traditional status in the community, but have a parallel agenda.

Unlike gift-sharing, the benefits of commodity exchange are improvements in the technology of production that are driven by price. Price-driven exchanges lead to increased individualism. In past times some musicians had wealthy sponsors who retained their services. Their function was to create a *product* that consisted of an entertainment for others. In other words, the motives for musicians to continue the tradition may alter with increased interest from financial sponsors, record and management companies - and perhaps more so with the increased opportunities presented by the internet.

Nobody involved with traditional music in western culture is solely part of one and only one economic community - indeed, most economies are an interlacing of commodity transaction and gift exchange. The traditional music community both on and off line certainly involves both types, but gift transactions continue to dominate the community's

---

[264]Raymond, Eric S: 'Homesteading the Noosphere' (web-published at www.tuxedo.org/~esr/writings/homesteading/homesteading/ April 1998) p8
[265]Kollock P: 'The Economies of Online Cooperation: Gifts & Public goods in Cyberspace' p221

systems of exchange. However, there is an historical precedent for individualistic contractual arrangements that are firmly based in the economy of commodity exchange.

To sum up, through the examination of traditional musical practices online some conclusions can now be drawn as to whether online interaction amongst traditional musicians is likely to alter the relationships and social structures within the community as a whole.

First of all there are two types of exchange that take place both online and in live settings. One is in line with the economic system of the hegemony in which commodity exchange is central and which we in the west are all inevitably a part. These transactions are of *commodities* that take the form of virtual lessons, CD, video and book sales. The second is a direct extension of the gift-sharing system. Examples of this type of exchange are the transmission of musical *information* via live interaction at sessions, by **abc**, staff-notated tunes that can be printed off from free sites etc.

In other words, gift-sharing is fundamental to TTM which, by its very nature, is attuned with the network culture of online activity. At the same time, commodity transactions take place in the traditional music community both on-line and live, in parallel with gift-sharing.

There is a fear however that an imbalance will occur that may upset the dynamic of the whole system of TTM. How this may occur depends very much on the nature of exchanges that take place on the internet. Because the internet is a developing platform it may take some time before patterns of behaviour emerge. The danger is that rules that are being developed to apply generally to the exchange of information on the internet may come to be incompatible with those that have existed in TTM for centuries.

Some musicians and academics fear that the free sharing of the abundant resource that is traditional musical material may be about to change because of online exchanges. To explain, McCann attempts to define traditional music as a *commons*. Commons are a 'material & symbolic reality' characterised by two main features. Firstly, they are open to all and secondly they are a potentially depletable resource. Commons are nebulous by nature, 'constantly changing, never *purely* traditional, global or modern.'[266]

---

[266]Michael Goldman cited in McCann, A: 'All That is Not Given is Lost' p89

156

Let us deal with these two features separately. Open access is characterised by the absence of well-defined property rights and lack of regulation. It is free to everyone and the release and reception of intellectual information is not restricted. All this is true in relation to the quantity of available information for traditional musicians that has been developed on the internet.

Moving on to the second point, a *tragedy of the commons* occurs when 'a common resource is degraded by overuse'.[267] The resulting deterioration in the benefits, or increase in the negative aspects of the common resource, will lead to a loss for the community. It is known that fish, timber or oil stocks can become depleted in this way, and there have even been suggestions that the internet itself could become a victim of its own success. Could it be possible that a musical repertory can be depleted in the same way that fish stocks or oil can?

Because the resource is in a state of constant renewal and regeneration it could be suggested that traditional music is not a depletable resource. However, it is important to discuss the *material* alongside the *processes* that frame its manifestation in time and space. There is a danger in separating two symbiotic features of a musical idiom and treating them as separate entities. Political & social upheaval can lead to the loss of social structures that have ensured regeneration for centuries. Therefore it is possible that all memory and record of a repertoire could be lost and that continuity could be severed. There are notable instances where this has occurred, particularly in England, even when the repertoire has been partially preserved.

It could be argued, therefore, that it is the social structures that are the 'resource', and not the musical information or commodifiable material that is generated by them. Once lost, a communal archive of oral material and the systems of transmittance can only be revived as a reconstruction. In this kind of scenario, it is not just musical information that is lost. It is also the dynamic processes and social relationships that are intrinsic to its transmission. In other words, the resource is the *whole* process that leads to the perpetuation of the genre and its source material. In this sense it could be said that traditional music is, if not a depletable resource, then one that is irretrievable if lost. If this is true, the change of

---

[267]Gupta, A, Stahl, D, Whinston, A: 'The Internet: A Future Tragedy of the Commons' (web-published at http://cism.bus.utexas.edu/alok/wash_pap/wash_pap.html July 1995) p1

157

traditional social patterns of musical interaction arising as a result of a shift to internet transmission could deplete the resource.

The *virtual* nature of online interaction is the problem here. Receiving transmitted material does not guarantee automatic access to the traditional music community. The necessity for social relationships as a defining aspect of TTM overrides the individualistic results of this phenomenon. Participation in a *live context* must first be earned through a personal investment 'in time and self in negotiation with others'.[268] This is the aspect of the exchange that involves labour. One has to learn a specific repertoire and respect the internal social structures. One has to know what to do with the information one receives. These entry requirements mean the *community* cannot be classed as open access, but the *information* can, a distinction that McCann does not clarify.

So there is evidence, as Kollock suggests, that shifting interaction to an online environment can upset the balance of traditional values. However, we can also see that the online and live interchange environments have similar qualities. The developing codes and practices of social interaction specific to the online environment display a desire by those involved to maintain the same kinds of values determined in a pre-established live environment. Those who choose to work online developing archives, information sites and notation systems do see themselves as representatives of the community as a whole, but by maintaining an 'open' philosophy in what they do they are allowing regulation and criticism in an interactive setting. Most importantly, the dialogue within the various sectors of the traditional music community demonstrates an awareness of both the negative and positive aspects of TTM online. Above all, there seems to be a fair degree of self-regulation and monitoring of online transmission amongst the traditional music community as a whole.

The following section explores in more detail some of the practices and relationships that are developing between traditional musicians who use an online environment, and other groups with whom they come into contact on the platform of the internet.

---

[268]McCann, A: 'All That is Not Given is Lost' p99

The Shift of TTM to an Online Environment: Differences & Similarities in Practice

So how has the system of TTM adapted as the traditional music community shifts previously established patterns of social interaction to an online arena? In Kollock's analysis he looks at the effect of gift, and the effect on gift of market relations and at how the economies of cooperation change as one moves to the Internet. In this section the dialogue between the online and live communities will be examined. It is useful to establish to what extent the two sectors engage with one another.

The difficulty in monitoring transmitting of information of a non-commercial nature is that there is no reason to keep a record of it, making it more difficult to trace. Many of the processes involved are invisible and the best path is to take regular 'snapshots' that indicate emergent patterns of change. The results of the research indicate some areas where change may be taking place and these will be examined shortly. First of all there is a brief analysis of internet use amongst a sample group of users questioned in 2001 about their methods of transmission. This will give a clearer picture of current TTM trends.

It is interesting to note from the survey that when it comes to transmission there is a mix and match mentality amongst musicians. The traditional music community has seams of members who use a combination of methods to acquire material supported by some level of live interaction. Of those who use books, some will also use oral methods (direct one-to-one interaction, listening to recordings and so on), while others do not. Some who use oral methods predominantly may also use the internet, while some readers of staff notation will not use the internet, though they may use recordings, and so on. It all depends on the skills of the individual. The main pattern to emerge is that the more musically literate a musician, the more likely he or she is to use as many forms of transmission as are available. As suggested previously, those who are technologically advantaged have the most access to information.

Let us begin our analysis with a look at a key behavioural trait: online cooperation. The extent to which seeming strangers naturally cooperate has been brought to light through the study of online communities. It is useful to see whether the motivations for cooperation alter significantly in an online environment. One example Kollock gives is that of participants in Usenet groups devoted to notebook computers who 'routinely help others

out with technical questions and contribute new computer code for others to use.' [269] This is information that in a live situation would be commodified; professional consultant programmers are generally only available for a fee.

Kollock asks what the reasons for such a large amount of online cooperation might be. In his example of usenet group members helping each other out online there is no established precedent in live interaction. Though it may exist as a phenomenon, it has not been proved as a normal social function in that context.

Cooperation amongst the online traditional music community is also conspicuous. However, in the case of traditional musicians there *is* a long established precedent for this kind of behaviour, as has already been noted. In traditional music there are many examples in everyday practice of exchanges that are non-contractual - mainly the passing on of musical material. This is an adequate explanation of the high level of cooperation that exists amongst the online TTM community.

However, the fact that cooperation exists is only a small part of a larger picture. Kollock describes a variety of motives for cooperation.

The first of these is reciprocation. As we have seen, there is a system of *generalised exchange* (i.e. where reciprocation is anticipated) established in the traditional music community. Whoever contributes material expects to receive material in return. Over time, the whole community will benefit so long as there continues to be a free exchange of ideas.

In order for reciprocation to take place, members must continue to persist in their contributions and a strongly defined group boundary is needed to encourage people to reciprocate.

Reputation is another motive for cooperation. 'Having prestige in the community encourages motivation'.[270] As implied in the previous section, in a gift-sharing society the only measure of success is reputation among one's peers.

---

[269] Kollock, P: 'The Economies of Online Cooperation' p221
[270] Ibid. p228

Each player in his or her local circle of players is identified for a different reason. Some may be admired for their playing style whilst others may be respected for the wealth of their repertoire or a strong emphasis on the regionality of their material. However, reputation can only be gained if a player is to be seen and heard. Members of the community will use a variety of methods to learn new material but ultimately the *live* context is where the process is legitimised.

In the case of the online traditional music community, although individual identities as musicians exist in live contexts, technological skill is a pre-requisite for status in this setting. Members have established new identities for themselves in the online community where new roles exist. These roles may not be visible to the community at large. However, the same notion of visibility exists in this sub-context. A member who is seen to be contributing a lot is more likely to gain higher status.

The reputations of some service providers transcend the limited online community. John Chambers is one example. His *Tunefinder* service, and others like it, are used by musicians who surf the net searching for tunes. Because these websites are superficially more visible the personalities who set them up are more likely to be known outside the online environment. Other individuals have gained a fair degree of prestige in the online traditional music community for the work they have put in e.g. in getting the whole **abc** project off the ground. Walshaw himself (who developed the **abc** system in the first place), and hackers who continue to work on developing **abc** related programs, are known mainly within the online community.

Some contributors to the community do so because they feel they can help the whole community i.e. that there is a need for that individual's contribution. This certainly motivates some writers of **abc** programs. One developer said;

> I have spent countless hours . . . over many years writing Muse. One of the joys is being able to occasionally do what people need.[271]

Those individuals who are developing the uses of **abc** may feel their contribution has an effect on the online music environment as a whole. This sense of efficacy is another motivation for cooperation.

---

[271]Laurie Griffiths, from the abcusers list 29.10.01

161

Additionally, if developers notice how their work makes other users change the way they operate online, they are more likely to contribute. In the community at large, the influence of the internet can be seen. Examples are the number of musicians bringing **abc** files to sessions and the increased ease of being able to source titles and authors. The building up of resources of traditional material in digital form is quite an achievement in archiving terms.

Many people within the community express a sense of belonging or attachment to a group that contains like-minded individuals. In many cases the social aspect of the activity of making and sharing music (a combination of individual and collective action) makes up a large part of a musician's cultural identity. This sense of attachment to the community is as important in an online setting as it is in the community at large and is a major factor in the motivation for cooperation.

However, having access to the online facility does not signify unmitigated acceptance of the benefits of online TTM. Some musicians have specific reasons for *not* wanting to receive or transmit material in that way. In these cases they reject in principle the values of internet transmission. This rejection is manifested in a refusal to cooperate.

For instance, as mentioned in the previous chapter, one player had no objections to new technologies as such - he had readily adopted the use of the internet for other purposes, mobile phones and text-messaging.[272] His belief is that TTM should remain firmly in the realm of local one-to-one personal interaction. This opinion is not directed at the internet alone but is equally applicable to the use of books and recordings for transmission.

Moving on, an important aspect of the move to an online environment is the effect of digital transmission. Kollock suggests that the *value* of a public good can shift as one moves to online interaction because many 'invisible' people have access to the digital information. Practically speaking, an individual or a very small group of people can transmit identical material or services to a potentially huge group of recipients. The number of people who write **abc** files is of course much smaller than the number of people who benefit from them. Theoretically, this shift in value acts as an incentive to those involved in developing online facilities and could alter the balance of interaction within the community.

---

[272]Paul Bradley in conversation with the author 26.9.01

162

The activities of groups involved in commodity exchanges could have implications for the community in general. Scoiltrad[273] is one example that has its origins in the commercial arena. Although there are increased economic benefits for the local economy there are the costs of commodification to take into consideration; exploitation of a common resource, loss of local identity and homogenisation. If any one of these processes gets out of control, the balance of values and practices within the community as a whole could be upset.

In terms of repertoire, because the information is digital, individual efforts to exploit the common resource do not diminish the whole in any way. The commercial aspect of the transactions that take place only affects those who are willing to pay for it. Oral methods are still available and are also undiminished.

The concept of courses and private lessons that involve commodity transaction have been available for some time and are there to enhance oral learning, not replace it. The service provided by Scoiltrad can benefit an unlimited number of people - unlike a book, where only a finite number of people can benefit. There is no rivalrous consumption with digital information of this type. Generally speaking, the commercial aspect of Scoiltrad cannot be perceived as a threat.

In sociology, a privileged group is one where the efforts of an individual benefit many people. This kind of group was considered unusual until the advent of online interaction, but now the costs of co-ordinating the system are negligible, and can be seen to benefit a potentially huge audience. This type of activity indicates a shift in the economies of production - 'the amplification of the value of the contribution and a decrease in contribution and coordination costs'[274]

The abc community could be described as one such group. In the traditional music community it is very unusual for one person to be credited with an innovation that is beneficial to so many of its members. Staff notation took centuries to evolve, as did instrumental development. Dance forms changed due to many outside influences. A few composers stand apart for their individual contribution to the 'traditional' repertoire, and the same can be said for collectors, but in the main the repertoire is looked on as a common

[273]http://www.scoiltrad.com/resources/resources.html
[274]Kollock, P: 'The Economies of Online Cooperation' p225

resource that has come about through the efforts of many individuals who have contributed to the whole.

However, the efforts of Chris Walshaw, who first developed the system, have huge and long-lasting benefits for all. His contribution to the community is unique and has only been made possible because of the nature of online interaction. What is interesting is the stance Walshaw took once he felt his part in the development of the system was over. Ensuring the code was open source, he simply passed it on to the community in general to develop as it saw fit. It bears the characteristics of a common property resource, befitting the traditional gift-sharing economy for which it was devised.

Of course to participate in the online community one must have access to computer facilities and my survey shows that for most respondents access was not a problem. Nearly a third of all respondents in the survey had at least 5-10 years of computer experience, and only 3% had no experience at all. [275] It seems that in theory at least, if a musician wants to go online there is no barrier to joining the online fraternity.

However, it is well known that online activity tends to be dominated by educated middle-class users who are in a more privileged position in terms of gaining access to facilities. Of course, it could be argued that facilities are available in public libraries and cyber cafés. For disadvantaged people, though, there is not the same support structure that exists in the workplace or in educational establishments to encourage improvement in or development of IT skills. On the other hand, the costs to them of turning up at a session are minimal.

Amongst internet users, a shift can be seen in the perceived value of notation. There could be various reasons for this, and it could be only a temporary change as a new platform for transmission emerges and a new system of notation is in the early stages of development. Examples of how this shift is manifested can be seen with musicians learning to read staff notation through the use of abc notation, the increased use of notation at sessions and the online display of notated versions of a band's repertoire.

This increased use of notation could be a symptom of the ease by which abc associated programs enable musicians to find and print tunes. In some cases it is used in a deliberate effort to get local musicians to learn a common repertoire. The evidence for this

---

[275] ITTM Survey 2001

164

phenomenon is anecdotal and has not been collated, but it could signify a temporary shift away from the oral nature by which most sessions operate. Reading notation at a session in the past has generally been considered undesirable.

However, the use of notation in some circumstances has a different significance. In the past it has been uncommon for a band or solo artist to give a notated representation of material performed in the sleeve notes of recordings. However, now that it is easy to do so, a band can display their repertoire as notation on their website. This activity can be legitimised to a certain extent. The band that does this is seen to be recognising the important two-way participation that exists within the community. The band is not simply an entity that performs to an audience as a one-off experience. It is adding to the collective repertoire and by openly displaying its sources can be seen to be making its contribution available to others.

So what are the indications of change in TTM that this research has thrown up? Is there evidence of a diverging community as the criteria for reputation alters? Some conclusions can be drawn both from the motives for online cooperation, from the effects of digital transmission, the increased use of notation and access to online facilities amongst the traditional music community.

Firstly, the concept of interacting with a 'stranger' in a mutually beneficial way is not unfamiliar. In a live setting a session-goer may not recognise every name or face he or she comes across, but it is quite likely that players will have common references such as social situations (dances, sessions, festivals, etc.), and certainly repertoire. Most importantly, participation has existed in the oral tradition for a long time. As a corollary, it would not take much incentive to generate trust between fellow musicians in an online context.

The vast number of contributions shows that a strong online identity amongst traditional musicians exists. There is a significant willingness to cooperate with online interaction in anticipation of reciprocation. There is a great sense of achievement in terms of facilities that have been provided and continue to develop. The feeling of attachment to the community as a whole seems to be very strong, encouraging the motivation to cooperate.

Of course fully cooperative online communities have their drawbacks as well as benefits. There could be an increase in the amount of poor quality information (e.g. badly written

abc files) and opportunities for commercial 'individualistic' gain, not to mention the alienation of the non-computer using sector.

Gaining a reputation for working specifically on the online platform has led to a technological subculture of traditional musicians with its own vocabulary. Historically, this phenomenon is commonplace where people adopt the use of any new technology. Some musicians are focussing their contributions in this area where they gain the most prestige. Within that group there already appear to be factions emerging e.g. those who use **abc** as a means of quickly sourcing material or sending tunes to one another and those who spend a quantity of time transcribing whole books or developing **abc** programs.

One regular contributor to the **abc** users chat room describes the former as 'naïve' users. Another states that although musicians in his morris dance team use **abc** they 'aren't technically orientated'.[276]

Within this more technically oriented fraternity itself divisions exist. Jack Campin gives one example here:

> If you look at discussions on the **abc** mailing list you see two rather distinct cultures - the people who use player or MIDI-converter programs and those who just want to type-set staff notation.[277]

This division between the technologically proficient members of the community and those who are less inclined to use the facility could be seen as an unbalancing of traditional motivations for cooperation. It further divides members of the community into areas where different skills are required in order to be able to participate.

The problem is that the online community could be seen by the rest to be appropriating an area of transmission that is closed to other members of the community. General users have access to more information, and it has been made relatively easy to download a tune as staff notation. However, a smaller group, the technology-literate sector of the community, who put relatively more effort into inputting the data, provides the information. One result could be a widening gap between those who transmit and those who receive.

---

[276] Comments made in abcusers list 24.5.02
[277] Jack Campin in an E-mail to the author 28.2.02

The danger would be if, because of this imbalance, one group were led to reduce cooperation with the community as a whole. If internet transmission came to dominate the interchanges of the whole community, those who input the data could control the type of data that they choose to transmit, leading to a form of censorship.

That, of course, is a worst-case scenario and in my opinion is unlikely to occur. Diversification into more specific areas of TTM need not in itself be a cause for concern. After all, there already exists a healthy discourse amongst players on the subject of transmission with differing criteria for reputation. This leads us on to the subject of self-regulation.

In most situations it is apparent that though technically proficient, the providers of facilities are also knowledgeable musicians in their own right. These people are well aware of the trust that they hold as custodians of the tradition in this new arena. As the whole system of traditional music is dominated by amateurs, there is no hierarchy as such. In the domain of the internet the proof of the worthiness of the service provided is that it is offered with integrity.

As proof of that, there is already a vast quantity of traditional material available on the internet and it can be seen that a broad representation of the repertoire is in circulation. Musicians have transferred the contents of material published in book form to abc, others have input information on the repertoires of particular regional sessions. Individuals circulate material to friends or post them on open sites and bands will allow access to notated versions of their repertoire. The material is old, new, regional, popular, obscure, personal, anonymous and with named composers. It is of all forms.

Certain properties of TTM have been upheld in the new environment. Online TTM can certainly be seen to be supporting and supplementing more established methods. The common property ethos continues. Digitisation of information does not reduce the common resource. Open access both off and online encourages self-regulation. The very fact that it is open demonstrates willingness for those who input information to be held accountable for their actions.

There is a general feeling that online activities that involve TTM must be legitimised. Discussion rooms are a prime example of the kind of informal forum for monitoring the condition of online activity. Services that appear to exploit the system are easily identified.

Changes brought on by new modes of interaction online are not invisible to the community as a whole. However, an effort must be maintained to keep issues out in the open. Unless the results are constantly aired in a live setting, the fear that enclosure could ensue is a genuine worry. A dialogue between those involved with technology-based versions of TTM and purists who believe live oral transmission is the best way must be continued.

Above all, the live aspect of musical transmission remains the strongest regulatory factor. Any changes that online TTM is responsible for will sooner or later show up in the live music setting because the live aspect of the music is an intrinsic part of the function of the tradition that even the most avid enthusiast of virtual music transmission would deny. Also, the dissemination of musical material can never be controlled by the online community while the resource remains in the collective memory of the community at large.

Perceived Threats from the Shift to an Online Environment

In the previous section we examined some changes occurring in the practices and behaviour of the traditional music community as a result of TTM shifting to an online environment. In this section we will examine how emergent practices online could expose the system to threats.

It has been established that TTM is a gift sharing system of exchange exhibiting many of the features of a commons. In order for traditional music transmission to remain a gift-cycle system of exchange it must retain certain features. It needs to be unproductive in terms of market forces, it must retain amateur participatory performance practices and all this must take place in time and situation-specific conditions.

On the new platform of the internet - itself with an unstable system of regulation - cultural practices from outside the traditional music community can impose their own values, altering the balance of cultural practices within. By its very nature, a common property resource is open to exploitation. It remains to be seen whether an imbalance between gift

exchange and commercial enterprise on the internet could present a real threat to the structures that support TTM.

With different patterns of interaction now developing between newly established online communities it is here that TTM is thought to be most vulnerable. There is a risk that by placing musical material on the internet in an open access situation enclosure could occur. This is when an idea is taken over and 'fenced off' by an outside party and exploited for profit. For example, it can be seen to happen where issues such as copyright are concerned. The music industry, which assumes its language to be universal, can impose its own values once the music is separated from its original source.

Features of the traditional music system that get lost in translation are deemed insignificant or inferior by the industry who, having claimed the musical material, presume to speak for the system it has enclosed. Without a common vocabulary, in this case a shared exchange system, the results of enclosure take on a different value for those who enclose and those who are enclosed.

Theorists who study the effects of globalisation indicate how the traditional music community copes with threats such as this. Krister Malm suggests an effect caused by 'fields of tension between opposing power sources,' which he calls 'discordant trends'[278]. For example, where an increase in 'global' styles occurs, there is a corresponding increase in local styles. Similarly, where more homogeneity occurs, there is also an increase in diversity. In response to wider access, any swing towards the controlling of one particular area of music transmission elicits a corresponding swing in the other direction. For example, there appears to be a strong increase in live performance practices and oral learning despite the huge growth of digitally transmitted music.

It is also my contention, as mentioned in the previous section, that patterns of behaviour that have long been established in the oral tradition, such as gift-sharing, are coming to override other systems of exchange in an online environment, even infiltrating areas where it was not previously established. Certain forms of online cooperation such as the communal development of free software demonstrate this.

---

[278]Malm, K; 'Globalisation - localisation - homogenisation - diversification & other Discordant Trends' in *Global Repertoires: Popular Music within & Beyond the Transnational music Industry* Eds. A. Gebesmair & A. Smudits (Aldershot; Ashgate, 2001) p89

This shows that modes of operation that were assumed by the hegemonic force to dominate interaction are proving to be weak in the face of new online practices that have their basis in the gift-sharing system of exchange.

The difficulty seems to be that this kind of online social behaviour is not often acknowledged. The more common view of the internet links it with globalisation as an economic force with all the accompanying negative fears such as homogenisation and commodification. In reality, cultural practices associated with TTM are often successfully transferred to an online environment without visible adverse effects. The trouble, as Anthony McCann points out, is that 'embedded cultural practices and values of traditional music have not been defined which means they are being threatened.'[279]

Up to a point this assertion is correct. However, it could be the case that the exponents of TTM are progressively defining cultural practices. In some senses, the very act of representing traditional music in all its forms on the internet has forced the community to become more articulate in its attempts at definition. This is visible on sites like the Irish Traditional Music Archive website[280] which opens with a definition of Irish Traditional music along with a description of some of the social structures that support it, and some of the abc tune-finding sites that cater for a specific set of users who have an understanding of the system.

But in what other way can this problem be managed? As Anthony McCann states, it is important to approach the subject 'away from the goods-based analysis that has dominated Common Property Resources literature'.[281] In addition, he insists that, paraphrasing C. A. Gregory, we must not prescribe cultural activity but assert the contemporary validity of traditional practices as a 'contemporary response to contemporary conditions'.[282]

His strategy for dealing with the wider problem is to ensure that a dialogue is maintained that will address issues of appropriation and under-maintenance at an early stage from within the community itself. One suggestion Anthony McCann makes that may assist TTM stand up to threats is a strong sense of a group boundary within the traditional community

---

[279]McCann, A: 'All That is Not Given is Lost: Traditional Music, Copyright & Common Property' in *Ethnomusicology* vol 45 no.1; Ed. Bruno Nettl (U.S.;University of Illinois Press; Society for Ethnomusicology, Winter 2001)p89

[280]http://www.itma.ie/home/leafla.htm

[281]Noonan, Douglas; 'Costs of Innovation in the Commons' (web-published at http://www.free.eco.org/pub/FP/Costsofinnovation.html#item2 © 1996 by Free Inc. 23.8.01)

[282]C. A. Gregory cited in McCann, A: 'All That is Not Given is Lost' p92

both on and off line. There is evidence of the existence of such a feature, encouraging the capacity for cooperation and self-regulation within all facets of the community.

The fears expressed by members of the sample group in my survey (as mentioned in previous sections) are most likely to come about through conflicts with agents that deal with issues such as copyright law and publishing (leading to increased professionalism and commodification), the world wide web itself (with globalisation bringing homogenisation, loss of cultural identity and standardisation) and the shift away from oral transmission and live performance towards a more notation-based virtual replica of TTM. It is necessary to look in detail at each of these areas. Bear in mind Krister Malm's 'discordant trends'.

> There are different processes of change at hand that seem to be completely discordant. You listen for a pattern but what you hear is cacophony.[283]

Let us look first at online publishing and copyright. It is important to make a few points as a brief background to copyright law and traditional music. There follows an example that highlights the dilemma faced by the traditional music community by making a distinction between common property, common knowledge and intellectual property.

Common property deals with physical items such as roads, air, light, water, fishing stocks, etc. It deals with basic human rights. For the sake of argument, from the traditional musician's standpoint, let us say that non-copyrighted musical texts fall into this category - the texts are a physical resource to which the whole community has access.

Common knowledge is to do with oral traditions, like local knowledge of the best place to catch fish or how to get to the train station. Oral musical sources fall into this category.

Both the above categories have the potential for being commodified, but because of the nature of the knowledge, they exist primarily within the gift-sharing system.

Intellectual property, on the other hand, is commodifiable information that exists in a commodity-based economy. It implies a physical manifestation of an idea, protected by legal rights. It is therefore a concept that is alien to the practices of the traditional music community. However, as we shall see, the distinctions between these categories have become blurred where the two economic systems have come into contact.

---

[283]Malm, K: 'Globalisation-localisation-homogenisation-diversification & other Discordant Trends' p89

171

The problem is that in general, for traditional musicians, the collective repertoire is perceived as being in the temporary guardianship of the current living community. This concept is in conflict with the music industry idea of music generated by an individual composer or songwriter who is then assigned legal rights over that material. The organisations involved with drawing up copyright law (PRS & IMRO) make the assumption that all music can be commodified, and it is on that basis that the music industry exists. In copyright law, music becomes a composer's personal property until a deal is done with a publishing and or recording company.

PRS & IMRO have a certain category of material that is deemed to be 'in the public domain'. In copyright law the term *public domain* defines anything that is left over after copyright has been assigned. The term is, according to Anthony McCann 'synonymous with uninhibited exploitation of the music. It reinforces the anonymous dichotomy'.[284] There has been an idea predominant in the music industry that all traditional music is anonymous, usually with 'ancient' origins.

For traditional musicians, it is not that the communal repertoire consists of anonymous material but that the concept of a composer has a different significance. Traditional musicians are often well aware of the source of the material they play (i.e. the person they learned it from, the book it came out of, the group who recorded it etc.), despite the large proportion of anonymous material. With more contemporary material often the name of a tune writer can be found out with little effort. All the material is in 'the public domain' in the sense that anyone has the informal right to perform any tune from the common repertoire in a live setting - at a session, say.

So why is this issue so fraught with problems for both sides? What is happening here is that, as mentioned earlier, the two systems do not share a common language. As Anthony McCann says, 'the difficulty is a lack of a shared lexicon or consensus of concepts.'[285] The copyright laws have been forced to take account of the cultural values of traditional musicians. However the results are inadequate for both parties. In the case of PRS & IMRO assigning rights is confusing and complicated. In the case of the musicians, it leads

---

[284] McCann, A: 'All That is Not Given is Lost' p99
[285] Ibid. p98

to individualistic behaviour that is out of character with normal modes of interaction within the community.

Before looking at how copyright is dealt with on the internet it is necessary to understand the background to how copyright currently works with recorded material. Where the recording of traditional material is concerned, the issue of what is possible to copyright and what is not rears its head. The industry supports copyright in order that the livelihoods of their members can be safeguarded. However, traditional musicians have different criteria for a system of safeguards. It is more to do with ensuring elements of the collective repertoire cannot be enclosed and claimed by individuals for financial gain. This in effect would restrict the use of a common resource to others.

When recording an album of traditional music, what usually happens is that the group will record an album with about 12 tracks or 'sets' of tunes, and perhaps songs, some of which may also include a tune or set of tunes. Let us take the album *Sidewaulk* by Scottish band Capercaillie as an example, picked at random from my CD collection. Here we find ten tracks, six of which are songs, four of those being 'traditional' (i.e. anonymous) and two with an author assigned. Of the remaining four tracks, one is a set of three tunes, two of which are traditional and the other composed by a member of the band. The next is a set of five tunes, all traditional except one which was composed by a living musician *not* in the band. The next set consists of six tunes, one of which was composed by a member of the band, the rest being traditional. The last set is one of four tunes, two traditional and two composed, one by a member of the band and the other by a person not in the band.

All together there are twenty-four items to be taken into consideration, seventeen of which are traditional and seven original. But how do you assign royalties when both traditional and original compositions are included in one track? PRS & IMRO have recently decided that the 'copyright-free' status of traditional music (i.e. anonymous) should be upheld, but that musicians can claim 100% royalties on the 'fixation' of a particular arrangement.[286] However, a composer can receive royalties for a composition in the genre, which ensures he or she will get royalties as a composer if it is included in an arrangement recorded by someone else.

---

[286] McCann, A: 'All That is Not Given is Lost' p99

As anyone can see, when the material on an album is similar in format to the above, filling in notification forms for PRS or IMRO is a complex matter in the extreme. Furthermore, when you consider that each basic tune lasts only a few seconds, the whole notification system seems farcical.

Online, new opportunities for claiming rights over sources are becoming evident while boundaries between publishing and free public information are becoming increasingly blurred. To get a taste of the arguments that those in the commodity-based music industry are currently engaged in with respect to the internet there follows a précis of a debate published in the PRS members' magazine. Two PRS members discussed whether the owners of 'rights' should 'get tough on the use of music on the internet'.[287] Following that are some extracts from a pamphlet produced by the British Music Rights organisation. First, PRS member Andrew King:

> Intellectual property is treated like property because it suits people to do so. Protecting copyright is meant to ensure that artists and performers earn a living.
>
> Creators are encouraged to create, and society as a whole can reap the benefits.
>
> The internet is not a good alternative to mail order business. 50% of all e-commerce transactions break down because of customer dissatisfaction. There is evidence that sites such as Napster complemented rather than substituted CD purchases. The only new thing the internet has brought is a downloadable ring for mobile phones. The important thing new technologies bring us is new ways of creating and experiencing music rather than new ways of distributing it. Global music/entertainment corporations only have one goal in mind - money. Napster was not closed down because it was infringing the rights of musicians but because it was taking trade away from big record companies. The web is not about changing the distribution of music, it's about changing the experience of music.

In response to Andrew King's argument Dominic King wrote:

> The difficulty with the internet is that we are not dealing with physical objects. 'Inescapably, music is a product.' There is a lot of illegal downloading of music files. It is a battle about values.
>
> Corporations have fantastic potential to do good - let's influence them to provide the best services, the best music they can. The question will always be, is music worth paying for?

---

[287]King, Andrew & King, Dominic: 'King v King' in *M*, (PRS Member's magazine) #1, Autumn 2001 (PRS Ltd., London 2001) pp16/17

Sending sound files on the internet can always be useful as a promotional tool. However, industrial sized copying has to be countered for the sake of the industry and the talent it serves. It is easy to minimise the effects of a something-for-nothing culture. We don't want to offend the music corporations. They want to minimise their payments to me, but at least they do pay me. The PRS licences the right to make music available on the internet. Sites providing music all require a PRS licence. Licence fees are calculated according to the scale of music used. PRS aims to distribute licence money to members in respect of all the music made available on sites. Where this is not cost effective they will use samples of musical data.

D. King

British Music Rights is an organisation launched in 2000 that claims to represent the interests of composers and music publishers. Their aim is to raise awareness of issues related to copyright in the area of new technology. They say they are raising awareness of the value of music (for *value* read *financial value*).

In their publicity they talk of

> . . . the detrimental impact that unauthorised music sites and distribution of unlicensed music via the internet will have on the long-term prospects of composers, songwriters and publishers. . . Music is a £4.6 billion industry with export figures estimated at £1.3 billion and employment figures at around 122,000. The music industry is therefore as vital to the British economy as it is to our cultural well-being . . . We have the support of a huge cross section of music creators from a wide range of genres including pop, classical, film & media . . . We need to create understanding of the impact that new technologies are having on music creators at all levels and respect the fact that they should have a choice about their music. . . if you are accessing music on the internet then you could simply have something to say when colleagues or fellow students are using 'free' music sites. [288]

The further from its origin traditional music gets the more likely it is to become commodified. On the internet this is even more likely to happen because it is easier. Music 'products' can be downloaded, and in the case of abc it could be used to publish a book, to do academic research, for personal profit (online lessons) and so on. If too many individuals with the motive of personal profit take advantage of traditional music resources that have copyright-free status, it could endanger the common resource on the internet. As Kollock states 'Individually reasonable behaviour leads to collective disaster.'[289]

---

[288] http://www.bmr.org/campaign
[289] Kollock, P: 'The Economies of Online Cooperation' p222

The issue of copyright is closely linked with the concept of commodification and the arguments put forward in the above examples from the music industry exhibit the conviction that music is a commodity that individuals and corporations can gain financially from.

In their eyes, a 'creation' becomes property that can be bought or sold. Society is divided into those who give and those who take. There is the implication that the opportunities promised by the internet have not lived up to the expectations of those in the industry. The impact new technologies are having is portrayed as negative because creators of music are losing control and cannot choose how, when and to whom their music is being distributed - and are losing out financially as a result. In reality, it is the big corporations who are losing out on potential profits. The industry is still trying to control physical objects when music is being passed on increasingly as digital information. The fear that a 'something-for-nothing' culture (i.e. people illegally dowloading pre-recorded music from free sites) is going to lead to losses for the industry is genuine. They are beginning to believe the internet is better at bringing new ways of creating and experiencing music than distributing products, as was initially hoped. Meanwhile, PRS is trying to control the situation by requiring that a licence be procured for every music site.

To return to traditional music the commons, in theory, does not produce commodities, but commodification has occurred in the traditional music community. If the situation becomes unbalanced, i.e. commodity transactions become dominant, the form of the 'product' begins to be dictated from outside the community i.e. by individuals driven by profit-making.

If a modern tune were chosen for a collection it would be considered intellectual property, and the author's permission would have to be granted and a contractual agreement made. However, as soon as intellectual property enters the frame, a dilemma arises. Once a tune becomes individual property rather than common property, in theory it is excluded from the domain of the common resource and a certain type of individualism takes over as a result of it having become a part of a commodity-based system of exchange. The social value of traditional music is reduced as a result.

Conversely, a tune published on the internet as an **abc** file becomes common property. The social value of the music will be enhanced. These two processes are non-exclusive. Tunes

can also become de-commodified. It is not a one-way process. A copyrighted tune may be picked up by the community and shared as if it has emerged from within the traditional setting of the session with little regard for its original commercial context. Frank Nordberg has gone as far as placing a notice on his **abc** site informing visitors that they may not use **abc** files as part of a collection that is to be published or commodified in any way.[290]

However, the industry attitude can have a knock-on effect on online TTM as was clear from the following example when the website *The Digital Tradition* ran up against a publishing company who wanted to close it down for infringement of copyright. The site is well known amongst the folksong fraternity for providing free access to their collection of 5,600 folk songs and the tunes to 3,200 of them.

The dispute resulted in the site being closed down while the legalities were sorted out. This kind of site where information is being offered for free as a public good will keep on running up against this sort of problem until a clear way of dealing with traditional material on the internet is agreed upon, both by the traditional music community and the publishing industry.

Spokesman Dick Greenhaus now encourages visitors to the site to note the sources, and warns them that the music on the site cannot be used commercially. This example demonstrates an awareness of the need to define the cultural practices of a gift-sharing community. By publicising the conflict, Greenhaus is helping the community in claiming the right to continue the cultural practices of an oral tradition in a new setting.

Historically, common rights emerge in response to threats, dispossession or invasion. The legal rights that have been established emerged in response to threats - but were the threats an invasion of cultural territory, and exactly who is being threatened here - the traditional music community or the music industry founded on neo-classical economics?

The example of the dispute surrounding The Digital Tradition demonstrates the conflict between profit-making enterprises and free online services. Additionally, there is a movement to provide a huge free archive of traditional material online. As well as Dick Greenhaus's folksong archive there are many collections of tunes in **abc** format.[291]

---

[290] http://www.musicaviva.com/abc/
[291] See appendix 3

177

However, at the same time there is evidence that at least one writer of **abc** files has held back material in the event that he may decide to publish it in book form, an activity that has a higher potential for financial gain.

Meanwhile, as mentioned earlier, Lúnasa pre-empted the publication of their own soon to be published tune book by publishing pages from it on their own website as JPegs in standard staff notation for all the world to see. Perhaps they were working on the assumption that, given a taster of what is on offer online, people are more likely to want the material object - the book. Jerry Holland did a similar thing with **abc** files and staff notation examples from his book of material from Cape Breton.

It is difficult to tell from this set of examples whether a real threat from commodification exists. Anthony McCann, however is quite clear on the subject:

> If commodification is allowed to go unchecked, a very precious resource, the domain of gift, will be diminished. The reason it has been allowed to go unchecked is because value systems are deeply embedded in the cultural practice of traditional musicians. The community is ruled by a set of rights that do not have to be explicit in each interaction as they are taken for granted.[292]

It is true that there must be some form of monitoring commodity exchange of the musical resource. However, interaction on the new platform of the internet has precipitated the establishment of firmer codes of behaviour for exchange amongst traditional musicians that are open access by nature, leading to easier monitoring.

With globalisation comes a fear of homogenisation, loss of cultural identity and standardisation. The opposite of globalisation is 'communalisation', a term used by Richard Peterson in his essay on the links between these two processes.[293] Peterson's claim, like that of Krister Malm, is that as globalisation enters people's awareness, a reaction occurs to promote processes that counteract its effect.

As proof, Peterson mentions research undertaken over the last fifty years on radio audiences. There had been an initial fear that mass media would create 'dumb audiences' who would simply accept what was served up to them without question. However, it has

---

[292]McCann: 'All That is Not Given is Lost' p97
[293] Peterson, Richard A: 'Globalisation & Communalisation of Music in the Production Perspective' in *Global Repertoires: Popular Music within & beyond the Transnational Music Industry* Eds. A. Gebesmair & A. Smudits (Aldershot; Ashgate, 2001) p119

been shown that instead an 'auto-production of culture' took place, with audiences selecting from the whole broadcast output to suit their individual needs.[294]

It has been seen that with the introduction of traditional tune books the fear of standardisation associated with mass production was voiced. When notation was first used by ethnomusicologists to represent traditional music they reinforced the idea that they were recording a 'dying' art form. As a result, the use of notation became associated with preservation. This association, along with the breakdown of social structures, led to the values of the processes of memorisation and the oral tradition generally to be reduced. The idea was that the repertoire could be safely preserved in book form. However, many musicians embraced musically literacy, using books to their advantage as an aide-mémoire with no apparent detrimental effect on the repertoire itself. Musical material was more widely distributed, but numerous versions and variations of tunes continue to circulate. In turn, the live music scene benefited as material came more swiftly into circulation.

By a similar process, an increase in notated versions of tunes as a result of internet transmission (e.g. as **abc** files) has again led to fears of standardisation and the same arguments against notating material can be seen in discussions surrounding new transmission systems on the internet.

Musicians are able to boost their personal repertories from the vast selection of material available in a selective way and, as Peterson says, the fact that there is material available from such a vast number of sources on the internet 'suggests globalisation, but it can be a communalising influence as well'.[295] This is borne out by the fact that many traditional musicians use the internet to support local live music sessions with locally generated material. The oral tradition in many areas survives and material continues to be regenerated. What seems to be happening is that an increased fear of standardisation occurs within the community when a conflict emerges between those who only pass material on orally and those who trust the 'authenticity' of notated sources.

The continued resistance to sourcing material from the internet amongst the more conservative elements of the traditional music community is an important voice from within the community as a whole. It cannot be denied that a global resource seems to

---

[294] Peterson, Richard A: 'Globalisation & Communalisation of Music in the Production Perspective' p127
[295] Ibid. p125

contradict any notion of regional identity. Some musicians fear that the value of musical material and local tradition is lessened as it is taken further from its original context.

When Paul Bradley complains of people recording or videoing sessions while he is playing, he is expressing a commonly held fear that the music is being removed from its natural habitat into one in which it will make no sense. The music would become de-valued and the players could lose their status as its rightful guardians.

In contrast to this view, a young player who is not yet established on the scene described how, being of Irish descent but growing up in England in a place where there was no established Irish musical community, he felt a sense of displacement. His view was that it was all very well to have opinions that criticise the use of the internet as a source for material, but he needed to build his own repertoire from these sources because there was no pool of local players from whom he could glean material that meant something culturally to him. His argues that if there is a dearth of local sources then you have to resort to recordings and other resources like **abc** to find what you want.

Both players are using a system of generalised exchange in which there must be reciprocation. This generalised exchange has been in existence in the traditional music community for a long time, and now it exists in a virtual environment. A musician such as Paul Bradley with a strong sense of regionality cannot in his or her mind separate the concept of globalisation from cultural theft. However, the experience of the young man in the second example demonstrates the communalising effect that can occur as a reaction to globalisation.

Internet transmission can never truly threaten cultural identity or displace cultural behavioural practices already in existence because it cannot meet live transmission on its own terms. By its very nature, online TTM cannot transmit those live social behaviours that are the manifestation of the cultural identity people like Bradley so fear losing.

Again, the pattern of a reaction developing in response to a perceived threat can be seen to be occurring as methods for representing music digitally are developed on the internet. There is, however, no evidence to support the fact that traditional music is becoming more prescriptive as a result. If anything, traditional musicians have learned from the lessons of the past and are defining their own parameters for representing their music.

Finally we come to the idea that online TTM threatens live performance. What we need to guard against is that, as a result of internet transmission, the balance shifts too far away from live participatory performance practices.

Once more Richard Peterson's idea of a communalising reaction comes into play. Certainly, from my own research it can be seen that, although there is an increase in the amount of 'notated' music as **abc** files, there is also more live music practice occurring. Traditional musicians who attend sessions share the same values whether they use online TTM or not and interact to promote a common goal - the continuation of the oral tradition. My research shows that every **abc** user in the sample group also picked up music by ear in a live participatory setting, with most regularly attending a local session.

The traditional music community demands a degree of social interaction in a live setting that can never be replicated in a virtual environment. Where there is more global transmission, there is also an increased emphasis on the local scene. The World Wide Web *can* enhance live music on a local level.

6 Reconfiguring Models for the Continuing Examination of TTM

This final chapter draws together conclusions established throughout the text from three perspectives. The first is an attempt to highlight the issues surrounding research from the position of a participant observer within an academic environment and to sum up my experiences as an insider researcher. The second section considers the importance of defining the nature of an oral tradition within our contemporary environment both as a scholar and a practitioner. The concluding section is a more objective observation of the effects that the development of internet use has had on traditional music-making practices and cultural values.

An Holistic Model for Insider Researchers

In the scholarly study of traditional music within Scotland and Ireland new methods of analysis are emerging from within the community that are in keeping with the nature of traditional practices.

In terms of research methodology it is clear that acceptance of a first-person discourse is a step in the right direction. The account of a scientific approach is always in the third-person and exists to formulate pre-established laws. However, in the case of a subject area whose very existence depends on the conscious experience of individuals, we must accept the role that our specific and subjective contact with the world plays in the study of oral transmission. We must also reassess the importance of memorisation and the value of the collective memory in its own right, away from textual analyses. Within an academic setting this approach must be validated as part of a system that is geared towards the understanding of all aspects of western cultural practices.

At this juncture it feels appropriate to return to earlier thoughts on the overlapping identities of researcher and practitioner in the field. This subject is being discussed more frequently by scholars who use a variety of terms to describe this state of being: emic, bi-musicality, researcher with lived experience, musical-being-in-the-world, native researcher and insider ethnomusicologist.

Chou Chiener is right to suggest that there is a need for further writing on the subject. When discussing her own experiences as a native researcher in Taiwan she emphasises certain distinctions between the researches of an insider's view and those of a 'foreign' scholar.

> Those who have learnt music outside formal fieldwork contexts need to reflect
> further on the special nature of our position and experience.[296]

Each perspective has its own advantages and disadvantages. Chou sees the identity of a researcher as being tied up in the notion of 'guest'. A practitioner's identity lies in that of 'group member'. Insider researchers have specific difficulties to contend with that go against stereotypical methodologies in the field of ethnomusicology.

As suggested, a key difference is that for a researcher with lived experience and cultural familiarity, any study cannot be fully objective.

> A position of non-interference is simply one not open to many native researchers.
> These latter have no option of standing apart from their subject of study.[297]

Intervention, interference and contribution to the field are almost inevitable. Because it is assumed that all who participate in the musical experiences of the community will contribute material or knowledge of some sort, by *not* doing so one would automatically be setting oneself outside the group.

Participation in a practical sense also makes it difficult to take field notes in a conventional way. Chou solves this problem by citing herself as an informant, Titon by developing the concept of a state of musical-being distinct from his critical state as researcher. These notions can be justified in the particular case of an oral tradition by promoting the value of understanding gained from memorisation, oral learning and musical experience as being of equal importance as text-based analyses. Finally, those practitioners who have an alternative means of access to musical experience than those with a training only in western music should be encouraged to enhance non-objectivist scholarship.

---

[296] Chiener Chou: 'Experience & Fieldwork: A Native Researcher's View' in *Ethnomusicology* vol. 56, No. 3 ed. Bruno Nettl (Society for Ethnomusicology; University of Illinois Press 2002) p457
[297] Ibid. p473

In further studies it is important to ensure the focus is not on preservation, but on definition of contemporary cultural practices. Oral traditions cannot be viewed in cultural isolation. In response to threats they appear to mutate in accordance with the nature of the problem presented. It is important, therefore, to take this into consideration and use the methods of TTM as routes to gaining further understanding.

As an insider researcher I would like to add that as well as committing the results of my research to paper I have had the opportunity to represent my findings on 'our' terms to my fellow participants in a variety of contexts, occasionally prompting some lively discussion at sessions, not to mention playing. In doing so my perspective has been tempered within a community of shared values, beliefs, but also a healthy diversity of opinions. I hope that in some way my findings will work their way into the shared consciousness of the musical community of which I am a part, and somehow contribute to the continuance of the tradition.

Definition as a Mode of Empowerment

The main problem when attempting to define the cultural practices of traditional musicians is that the nebulous nature of their structure does not conform to a hegemonic western model of values. However, that does not mean it cannot be defined. The frame of reference for the concepts must be shifted in a paradigmatic way. In order to understand how transmission and reception work within traditional music many western concepts relating to how knowledge is acquired and the way people interact with one another must be viewed from a different angle.

Some areas where I believe progress is being made in more clearly defining the nature of this oral system are set out here. As we have seen, often the terminologies applied when describing mainstream economic and cultural practices are inappropriate when put into the context of an oral tradition, and it must be acknowledged that situations exist where a subculture has developed a different set of cultural values that have significance for the culture at large, as is the case here.

For example, in the study of economics a key concept is that a dualistic situation exists; a rural 'traditional' sector of the economy is perceived in contrast with the 'modern' urban sector. However, Anthony McCann suggests this dualistic concept be abandoned and that

184

we think of the *whole* economy as modern.[298] The economic motivations between these two sectors may differ, but the contribution made to the economy that come from within the culture of traditional music can have as much value for the whole economy as commodity-based transactions. The traditional gift-sharing system of exchange shows no sign of abating within the community itself. In fact it has been shown to be expanding as transmission and reception have shifted to an online environment. Practitioners involved in interchanges online are swiftly establishing ways of defining gift-sharing values within a new environment, steadily working towards a situation where they have control over the continuance of oral practices in this domain while the music industry struggles to deal with copyright issues.

I believe my research has proved that despite an underlying economic system of gift-sharing, traditional music is still part of the contemporary global economy. Oral traditions in Britain and Ireland are a thriving and forward-looking part of contemporary culture. Musical 'products' may or may not be worth cultivating, but the live settings in which the music thrives must be preserved. Live cultural events can certainly enrich our culture as a whole.

The following paragraphs are made up of a synopsis of the main tenets that currently govern the practices and values of traditional musicians in three chief areas - the basic constructs of the music, performance and transmission practices.[299] However, because of the nature of traditional musical practices it is difficult to discern exactly where the boundaries between each of these areas lie. For the sake of clarity I have included each aspect in one of the following categories: a living tradition, co-operation and the gift cycle and a common resource.

A living tradition

The state of traditional music in Scotland and Ireland today is linked to the notion of community with its shared consensus of cultural values. In discussing this music it is impossible not to talk in such terms. The traditional music community exists because of the communal nature of its activity. Music is performed communally, the repertoire is communal, the meeting places are generally communal public spaces. There is a

---

[298] C. A. Gregory cited in McCann, A: 'All That is Not Given is Lost' p92
[299] I have loosely based these groups on the definitions set out on the Irish Traditional Music Archive website (63 Merrion Square, Dublin 2 http://www.itma.ie/home/leafla.htm) 29.4.02

community of cultural values and the musicians commune with one another as information is transmitted and received. The majority of participants in this vast interlinking network view themselves as members of a community of traditional musicians, but are also aware of smaller group boundaries, such as being a member of the piping fraternity or someone who makes contributions on the internet.

The network of oral communication is vast, encompassing a wide range of interactive environments that are often difficult to explain in precise terms. Each member of the community interacts on many levels within interlocking cultural systems that have alternative sets of values. They will have their own opinions, experiences and references. Every participant will have their own idea of how they wish to develop their practice, but will be aware that the whole fraternity contains a diversity of opinions, some of which may differ vastly from their own. What they have in common is a general respect for the fact that the tradition exists with its open ethic, and few would want that to change.

By understanding this notion of community it is possible to see that definition is something that comes from within. People have the right to freely choose the direction of their practice – which instrument to play, which tunes to play, the context in which they play them, how they learn material and pass it on, who they play with and so on. At the same time they are restricted by common codes of conduct that have been built up through a process of consensus over a long period of time but which are constantly changing to reflect changes in our society. It is not exclusive or hierarchical, yet it binds people together in a common appreciation of a traditional cultural form that is unique to the traditional music of Scotland and Ireland. It is a healthy, dynamic, organic and self-regulating process that ensures continuation and guards the community from unwanted external pressures in a mutual desire to perpetuate what is perceived as a beneficial and culturally enriching activity.

TTM in practice is mediated by lived experience, and it is within the bounds of practice and participation that my attention has focused. Performance practice is dominated by amateur players at sessions, rather than the concert hall. The distinction between practitioners and listeners, performers and audience is ambiguous. An apparent listener may well be learning material by ear for future reference, for example. The motivation for participation is social and the processes of live musical experience, transmission and reception are inextricably linked within the community as a whole.

Oral transmission remains the main method for passing on material. With an increase in the amount of information being disseminated (due in part to online TTM) there appears to be a corresponding rise in the use of notation. However, just as many people seem to be learning orally as they ever did. If wider access to information encourages practice, and performance is made up of predominantly memorised material, then it is fairly safe to say that the communal memory increases in direct correlation with an increase in information.

Historically, the bulk of the traditional dance music repertoire was passed on through example and absorption rather than by formal teaching. Today there is more formal teaching, but within this there is a strong emphasis on oral learning, with notation only used by in a supporting role. A piece of music must be internalised and reproduced live in order for it to be realised in its true state. Non-musical cultural practices that are a part of the tradition have to be absorbed in a live setting. To be able to participate fully, this knowledge has to be absorbed by watching and listening to others perform. Most teaching emphasises the qualities and values of regional styles (as associated with accents in speech), though some practitioners value individual style over regional style, claiming there are numerous styles even within one region. However, features of regional styles are more accessible to others from outside regional communities than in previous years through teaching programmes and recordings.

Traditional instrumental music has its own systems of pitch, rhythm and structure that are related to the characteristics of individual instruments, dance forms and tuning systems that distinguish it from other musical systems. Solo or unison playing with little or no counterpoint and only simple harmonisation is the norm at sessions. During performance notation is not used. In band situations arrangers acknowledge the music as a melody-based system, and arrangements tend to be transient. Communal and individual repertories are in a constant state of flux. New material is introduced, older material is re-introduced and some material is dropped. Generally, there is some resistance to standardisation, and individuality and variation is encouraged so long as basic standards are adhered to.

Cooperation and the gift cycle

The values of non-commodity transaction and cooperation bind the traditional music community together. It is the music of the people in the sense that it is a communal activity

187

that is participatory and co-operative in both online and live contexts. The benefits are the development of stronger links in both local and global arenas that hold together members of long-established communities or bring closer those of fragmented ones.

Production of commodities, ownership and intellectual property are not the prime motivations for participating in traditional music. In general the community is against individualistic and commercial principles. Through the eyes of its practitioners oral transmission abides by 'models of creativity, collaboration and participation that together add up to the antithesis of the text-based, individualist and essentially capitalist nature of intellectual property regimes'.[300]

Western classical and pop music, set as they are within the commodity-based sector of the economy, are dependent on music industry corporations and arts funding and are subsequently at risk from market forces. Music in the popular music market is produced and judged on its merits as a marketable commodity. Meanwhile, classical music producers are at the mercy of government arts and PRS policies. The modern condition for traditional musicians is that they have the option of combining gift-sharing with commodity exchanges, but although some traditional musicians opt into the market for commercial reasons, traditional music can thrive outside the commodity-based sector. Professional traditional musicians are a small minority of all practitioners. Additionally, this sector of traditional practitioners is highly aware of the nature of TTM and the threat to it generated by their professionalism. These individuals are generally conscious of their position as ambassadors representing the values of their gift-sharing community in the commodity-based sector. It is their responsibility to negotiate a position that is acceptable to both parties on behalf of the rest of the community.

It has been suggested that the internet is re-defining the way that people work. Amongst the general population the internet as a platform has encouraged important co-operative interactions that were transparent in the live setting of the workplace and made them more visible. Before the existence of the internet, a feature of the oral system of transmission was a strong sense of group identity that encouraged co-operation and improved social relations. A healthy generalised system of exchange was already well established in the traditional music community. These behaviours eased the move to the internet and

---

[300]McCann, A: 'All That is Not Given is Lost: Traditional Music, Copyright & Common Property' in *Ethnomusicology 45 no.1* (Winter 2001) p90

encouraged the swift establishment of an online community where transmission and reception in the main continue to take place on the terms of the traditional music community - through open access, for instance. Ease of transfer of material on the internet does not reduce in any way the common resource available to the community as a whole. Many people can take advantage of the system without diminishing supply to others.

A common resource

This brings us to the concept of the repertoire as a common resource. It has been established that TTM allows for distribution in such a way that the communal repertoire cannot be diminished so long as the live element of practice continues. If material is appropriated for use within a different sector of the musical culture, when it is transferred to that sector the traditional rules governing its transmission remain within the system of TTM. Using a word-processing program as a metaphor, a copy of a piece of text can be cut and pasted into a new document where it is independent of its former surroundings. A new set of rules regarding the transmission of this copy in the new environment then takes over. Meanwhile, the old version remains intact and accessible in its previous location.

With CD sales, only the material object is bought or sold. The arrangements of material may be subject to copyright agreements, but the basic repertoire remains a common property resource. Whether or not one agrees in principle, progress can be made in protecting the freedom of access to a common repertoire in one sector whilst simultaneously allowing individualistic financial gain in the other.

A common resource or parts thereof can belong to no individual. Neither does the community take responsibility for it. The repertoire is in the temporary curatorship of a sector of the community who by accident or design choose to care for it. The concept of integrity in handling the music that is in the guardianship of the current generation of traditional musicians in an oral system of transmission could be said to be the equivalent of the concept of intellectual property in a commodity-based system. Bob Copper speaks not just for English singers but the whole traditional music community when he says:

> It's your song if you accept it. It's like a tenancy. You live in it, and you can adapt it and decorate it, and put wallpaper in, as long as you don't structurally alter anything. Then you hand it back in good sound order, and pass it on.[301]

---

[301]Bob Copper cited in Tim Cumming: 'Whisky & Corduroys'; *The Guardian* (Sat 27.4.02)

The Relationship Between Internet Activity and Live Traditional Musical Practices

In the light of this research and the ongoing spread of TTM practices on the internet, the relationship between traditional music and this particular technology needs to be more fully articulated in order to gain a better understanding of how the systems and values of oral transmission engage with other systems on a global platform. In this study an attempt has been made to advance a model whereby the cultural values of one system can be defined in relation to another in such a way that traditional practices can be continued without compromising the fundamental constructs that make up a consensus of communal activity within each sector. This model acknowledges that members of the traditional music community engage with different aspects of other economic, social and musical systems on a daily basis. It has been a useful tool when contrasting their online activities with other music producers and groups of internet users. This in turn can aid analysis of problems in areas of conflict. Both by surveying practitioners and through my own participation it has been possible to see the ways in which the shift of TTM to an online environment can be perceived as both threatening and as a mode of enhancing traditional musical practices.

It has been noted that the setting of the internet is conducive to the kinds of exchanges that already take place in the traditional music community. For example, the **abc** system would not have proliferated in the way it has done were it not for the pre-established systems of gift-sharing and cooperation on which TTM is founded. **abc** is unique in that it has been designed with specific traditional musical practices in mind. Its arrival has forced a long needed clarification of the relation between traditional musical values and other musical, economic and socio-cultural practices and has become a tangible focal point for their intersection.

The effects of online transmission and reception on live practice vary. Certainly there are some significant differences between the situation now and the one that existed prior to the development of the internet. In a live session context, when the source of material was being discussed the topics of conversation relating to repertoire tended revolve around recordings, repertories of certain players and printed publications. General information about instruments, gigs, dances and festivals would also be distributed by word of mouth. This continues to be the case, with the addition that players can now also be directed to

web-based tune archives and information websites on local, national and international events.

The internet has proved to be better at dealing with the transfer of information than controlling the movement of material objects. To a certain extent this has led to problems for the music industry in terms of expectations for improved music sales. However, where the commodity-based economy has problems in an online environment, the gift-sharing ethic appears to flourish, reflecting the way that information has traditionally been shared. Information is organised, easily accessible and open to anyone, and in this sense it is an ideal forum for dialogue amongst traditional musicians.

Because the music exists primarily in a live context, whatever information is gleaned online will soon get passed back into local communities. Even players who do not have internet access benefit indirectly from this increased availability of information. For example, if a session member inquires about the notation of a particular tune it is quite likely that someone will bring a copy the following week printed from an **abc** file found on the internet. The fact that individual tunes can be printed from websites at very little expense, and players can select *only* the tunes they wish to learn, may have an effect on the producers of printed publications. However, for the ordinary player it saves the expense of buying a book containing three hundred tunes when they may only wish to learn ten from that particular source. In this sense, the way instrumentalists build up notated resources reflects the idea of the old manuscript books at a time when printed publications were prohibitively expensive or difficult to get hold of.

One of the reasons transmission and reception on the internet has been so successful must partially be accounted for by the fact that generally it is not regulated, mediated or prescribed by any one organisation from outside the community. There is no single body dictating the direction that TTM should take in an online setting. Those who build sites, create tune archives, are involved in the development of **abc** or who use the internet to pass on information about traditional music are almost all practitioners themselves. However contributors perceive their activities, it is likely that a fair degree of altruism is involved. It is probably true to say that those who contribute and develop sites and facilities online do so on behalf of the rest of the traditional community, but only because they happen to have the skills required to succeed. Users have a choice in what they access, and would soon abandon visiting a site that had no benefit for them or pursued a line that went against the

values of the community at large. Users can take or leave the contributions of others and are under no obligation to alter their practices.

As communications improve and confidence increases, there is an increased awareness of performance values and contexts amongst the community generally. Traditional musicians are proud of their culture, many being extremely knowledgeable on historical aspects of their tradition, but the biggest shift in recent times has been the recognition of the value of the oral tradition. This has led to careful control when developing an online profile in order to sustain and promote the values of oral transmission and to protect the common repertoire from appropriation and enclosure, whilst simultaneously allowing open access and the free exchange of information.

However, some situations have arisen that bring different sectors of the traditional music community into conflict both with one another and outside parties. One area of conflict is the subject of copyright, which can occasionally lead to the shutting down of sites where a common resource comes into contact with music industry legislation. This generally comes about through a misunderstanding of cultural concepts between the contrasting economic systems of gift-sharing and commodity exchange. Traditional musicians can easily distinguish between the sale of products and services (such as CD sales or online lessons) and the distribution of a common resource in the form of information (such as an **abc** file). However, it appears that it is not so easy for the music industry in an online environment to differentiate between the two, the rights of authorship being the main issue for those who regulate the royalty system.

Commercial enterprise that is a part of the commodity exchange system is perceived by some as capable of eroding traditional systems of transmission because, like professional performance, the motivation is financial gain. This individualistic behaviour is sometimes perceived as going beyond the ethical boundaries of a gift-sharing system. However, this situation is not unique to online practices, and it could be argued that this expansion has positive benefits for a sector of the community. The online commodification of a musical tradition, if successful, is certainly capable of generating a healthier economic situation within the country in question. Traditional musicians have been exploiting the opportunities to generate income from their traditions through traditional music tourism for some time, as they have with published tune collections.

However, these threats are again tempered by the fact that the production of commodities, ownership and intellectual property are not the prime motivations for participating in traditional music over all. This type of commercial activity is so distanced from live transmission that its effects are unlikely to be felt within the community at a grass roots level. As long as oral transmission and reception continue to take place and the social settings that enable it to flourish remain in existence it is possible for these activities to function alongside on another without having too much effect.

I would like to conclude with by highlighting some key points that to me sum up the state of traditional musical practice and thinking in Scotland and Ireland within the community today. The following quote, though not from a traditional Scottish or Irish player, seems to carry the sentiments of many contemporary practitioners.

> Must we accept the loss of passionate idealism and traditions for the price of sophisticated technology and humanity's development in urban society?[302]

The fear amongst some practitioners is that traditional musical practices in Britain and Ireland are seriously at risk from globalisation. The proximity of different cultural and economic systems on a common platform makes some kind of dialogue inevitable, and this often leads to fears of the assimilation of one culture into another. For example, it has been shown that in the music industry the importance of process is denied, its role superseded by production. In common property theory capitalism is said to devour resources. Temporary codes of conduct hide the fact that appropriation is spreading and are therefore thought to be inadequate for protecting common property resources, yet increasingly there is evidence that the common traditional musical resource is thriving. However, this is dependant on maintaining the live settings where transmission and reception can take place.

Between different cultural groups there will always be areas of conflict that cannot be resolved. What makes the situation particularly difficult to unravel in this case is that in many areas contemporary transmission practices appear to be working in opposition to one another. This is illustrated by the seeming conflict between the global distribution of material and local repertoires. It appears that regional styles are being diffused and promoted simultaneously. Internet transmission both supports local communities and spreads material in a global sense. However, my research indicates that local communities

---

[302] Humphrey, Mary Lou from program notes for Tan Dun's *Red Forecast* 1996
http://www.schirmer.com/composers/tandun/red/

are now more empowered to promote their regional and local identities than they have ever been in the past. People tend to refer to locally established websites or tune archives for information that relates directly to live practice in their own area.

There is a possible explanation for this. Krister Malm's premise is that as one event occurs an opposite emerges in order to counterbalance its effects. This paradoxical state epitomises current events in TTM.[303] As music becomes more homogenous, more music appears that displays diversity. The more hybrid forms appear, the more likely it is that attempts will be made to maintain pure forms. As more music is represented as notation, the more it will be peformed live. The more individualistic behaviour is allowed to increase, the more collective action will be taken in response.

In order to clarify a seemingly chaotic situation it is possible to take Krister Malm's theory a step further. The more control commodity-based exchange systems attempt to exert and the more it is misrepresented in the media, the more the gift-sharing community is empowered to define its own terms. This idea can provide hope for those who fear that traditional music and the cultural values it promotes are under threat. A deconstruction of metanarratives is clearly emerging. From within the oral tradition the long-established systems of capitalism and technological progress in relation to musical culture are being questioned. Interaction with other cultural and economic systems do not necessarily lead to the breakdown of one system to the benefit of another, and the points where communication does break down can provide a catalyst for developing a better understanding and definition of oral culture. Above all, as Martyn Bennett explains here, we must learn to accept our participation in an ongoing process:

> The unavoidable fact about me as a person is that I feel more a part of the old ways yet make use of the most current technologies and my own generation's language to express myself in an attempt to answer the question.[304]

The biggest threat in my opinion does not come from the internet, which on the whole is open and self-regulatory. I would say that government cultural policy, especially in Ireland, has had more impact on the everyday practice of traditional music than online commercial activity. Legislation surrounding royalty payments for live 'performances' at

---

[303] Malm, Krister: 'Globalisation-localisation-homogenisation-diversification & other Discordant Trends: A Challenge to Music Policy Makers' in *Global Repertoires: Popular Music within & Beyond the Transnational Music Industry;* Eds. Gebesmair A & Smudits A (Aldershot; Ashgate, 2001) p89
[304] Martyn Bennett cited in Irwin, Colin 'Folk Dancer's Choice' *FRoots Magazine* (Southern Rag #213 March 2001) p23

194

sessions in order to encourage tourism is one example of interference from government bodies that may have a detrimental effect on traditional practices. The problem is that it undermines traditional forms of interaction at a grass roots level. In these circumstances ordinary players cannot just drop in to sessions, and a general reduction in exposure occurs as a result.

Finally, it could be argued that traditional musicians could have a more noticeable impact on the internet than the internet is having on traditional musical practices. As participatory and co-operative patterns of behaviour shifted to the internet and an online community was established, transmission and reception continued in the main to take place on the terms of the traditional music community. As suggested earlier, there is certainly a model here by which other organisations could improve communication, partly through the free exchange of information, and there is plenty of evidence that this is already occurring. In non-musical situations, the internet as a platform has encouraged important co-operative interactions that were transparent in a live environment and made them more visible. The differences and similarities between the way online communities and oral practices function is one area into which this research could usefully be extended.

APPENDIX 1

abc Developers

The list in the following appendix is not intended to be conclusive, but is a sample of **abc** developers at this moment in time, April 2003.

Allwright, James (England)
Wrote **abc2midi** & **midi2abc**. Suggested an ILF format for developers. Also wrote *YAPS*. Member of international standards committee.

Chambers, John (England)
Member of International Standards Committee. Has his own tunefinder site for traditional musicians who are into **abc**. The site will find tunes in **abc** format from many sites on the web by title, phrase, tune type, geographic origin, composer etc.

Conrad, Laura
Member of International Standards Committee. Transcribes facsimiles of renaissance music into modern - but not standard - notation and **abc** files.

Gonzato, Guido (Italy)
Linux system manager at Universita' di Verona Science & Technology Dept. Developed **JEDabc** & **abcpp**. He wants to maintain an *RPM* for **abcmidi** (Redhat Package Manager for easy installation of the program).

Griffiths, Laurie (UK)
Wrote the *Muse* software. Member of International Standards Committee.

Mansfield, Steve (England)
Wrote a tutorial on how to read & write **abc** and the program *TIAO* (Text In Abc Out).

Norbeck, Henrik (Sweden)
Has a site on which is his Irish & Swedish tunebook (in **abc**), and **abcmus** program with 1000 **abc** tunes and features.

Nordberg, Frank (Norway)
He has posted a comparative guide to **abc** software at **musicaviva.com/abc.** and has his own website of **abc** tunes

Taral
Working on **libabc**.

Taylor, Phil (UK)
Member of International Standards Committee. Wrote the first event-driven **abc** program for Macs called **BarFly**

Walshaw, Chris (UK)
Devisor of the **abc** system.

Some of the More Commonly Used abc-related Programs
& Their Functions

The list in the following appendix is not intended to be conclusive, but is a sample of **abc** programs being used at this moment in time, April 2003.

BarFly
The first event-driven program for macs by Phil Taylor. It is an integrated environment for working with **abc** files - a text editor, **abc** player/transcriber in a single application. It can play, check, transpose & display tunes in **abc** notation.

abc2ps
Michael Methfessel's package for converting **abc** into sheet music for which you don't need Mtex. It typesets it directly in PostScript.

abcm2ps
Jean-Francois Moine's clone of **abc2ps** that handles organ music better i.e. many voices per staff.

YAPS
James Allwright's free **abc to PostScript** converter (high quality sheet music) with parts of the code based on Methfessel's **abc2ps** program.

abc2midi & midi2abc
James Allwright's programs. These should make it easier to generate **abc** from commercial standard music packages with midi output. There's also **abc2abc** which transposes.

abctab2ps
A program that converts **abc** to tablature that can be displayed/ printed out.

abc4mac
Wil Macauly's program for users using ports of **abc2ps** & **abc2midi.**

abcmus
Henrik Norbeck's **abc player/tunebook** with search, auto chordsetting features etc.

Muse
Shareware application music editor developed by Laurie Griffiths. It can print, play, handle up to 8 harmony parts, and do guitar tab (Windows).

JEDabc & abcpp
Designed by Guido Gonzato JEDabc is a powerful easy to use Integrated Development Environment for **abc** files similar to BarFly. **abcpp** is designed as a pre-processor for **abc** files to tidy them up into a more standard format before using them.

abc2mtex

The original program for converting **abc** to sheet music developed by Wil Macauley. freeware mac or pc. 'probably the closest thing to standard **abc** that exists.'

abc2Win

An application by JimVint for converting **abc** files to notes on-screen. Shareware - pay a small fee if you want to print out.

playabc   a package for playing **abc** files through the speakers of various computers.

APPENDIX 3

Some abc Collections Available Online

The list in the following appendix is not intended to be conclusive, but is a sample of **abc** collections published on the internet at this moment in time, April 2003.

Frank Nordberg's ABC collection
http://www.musicaviva.com/abc/abcusers/index.tpl

Henrik Norbeck's ABC Tunes
http://home.swipnet.se/~w-11382/abc.htm

abc tunes from Le Grand Session de Manchester
http://www.lesession.demon.co.uk.

Richard Robinson's Tunebook
http://www.leeds.ac.uk/music/Info/RRTuneBk/tunebook.html

The Village Music Project
http://www.performance.salford.ac.uk/research/vmp/

The Ceolas Tune Archive
http://www.ceolas.org/tunes/

James Allwright's abc Version of the Nottingham Music Database
http://abc.sourceforge.net/NMD/

Toby Rider's Traditional Scottish Tunes in abc
http://www.tullochgorm.com/abc.html

abc Tunes from Cranford Publications
http://www.cranfordpub.com/tunes/abcs/index.htm

John Chambers' abc Collection
http://ecf-guest.mit.edu/~jc/music/abc/

Jack Campin's abc music site
http://www.purr.demon.co.uk/jack/index.html

APPENDIX 4

CD Examples

Example		CD track no.
1	*The Price of a Pig*; Shooglenifty[1]	1
2	*Jenny Picking Cockles*; Mike McGoldrick[2]	2
3.1	*She's In the Attic*; Shooglenifty[3] (reel)	3
3.2	*She's In the Attic*;_____(strathspey)	3
4	*Lochiel's Welcome*; Kinross & District Pipe Band[4]	4
5	*Peter Brown's*; Michael McGoldrick[5]	5
6	*The Butlers of Glen Avenue*; Lúnasa[6]	6
7	*Rosie's Reel*; Lúnasa[7]	7
8	*Gillian's Reel*; Kinross & District Pipe Band[8]	8
9	*John Brady's*; Cian[9]	9
10	*Ross' Reel no. 4*; Alasdair Fraser & Tony McManus[10]	10
11	*Goodbye Miss Goodavich*; Lúnasa[11]	11
12	*Rosie's Reel*; Lúnasa	12
13	*Shputnik in Glenshiel*; Martyn Bennett[12]	13
14	*Rosie's Reel*; Lúnasa[13]	14
15	*As A Thòiseach (Keep it Up)*; Capercaillie[14]	15
16	*Duke of Argyll's Strathspey*; Spyka[15]	16
17	*The Devil in the Kitchen*; Alasdair Fraser[16]	17

---

[1] Shooglenifty; *A Whisky Kiss* (Greentrax Recordings, Edinburgh 1996), track 7
[2] Michael McGoldrick; *Morning Rory* (Aughrim Records, 1996) Track 1
[3] Shooglenifty: *A Whisky Kiss* (Greentrax, Edinburgh 1996) Track 2
[4] Kinross & District Pipe Band: *Scottish Pipes & Drums* (Alex Cameron; ARC Music 1999) Track 8
[5] McGoldrick, M: *Morning Rory* (Aughrim Records 1996) Track 6
[6] Lúnasa: *Otherworld* (Sullivan; licensed to Compass Records,1998) Track 3
[7] Lúnasa: *Otherworld* Track 1 (Kevin Crawford)
[8] Kinross & District Pipe Band: *Scottish Pipes & Drums* (D. Barnes, ARC Music, 1996) Track 6
[9] Cian: *Three Shouts from a Hill* (Cian Records, Cian 001, June 99-Oct 01) Track 10
[10] Fraser & McManus: *Return to Kintail* (Dan R. MacDonald; Culburnie Records 1999) Track 2
[11] Lúnasa: *Otherworld* (Henessy) Track 1
[12] Bennett, Martyn: *Bothy Culture* (Ryko Disc, 1997) Track 3
[13] Lúnasa: *Otherworld* Track 1 (Kevin Crawford)
[14] Capercaillie: *Sidewaulk* (Green Linnet 1989) Track 7
[15] Spyka: *Spyka* (Waulk Music 2002) Track 3
[16] Fraser & McManus: *Return to Kintail* (Dan R. MacDonald; Culburnie Records 1999) Track 12

Glossary of terms

Aald reels An archaic dance tune type from the Shetland Isles, possibly with its origins in Norwegian music characterised by uneven phrases and odd bar lengths.

abc A system of ASCII format notation devised by Chris Walshaw for the transmission of musical (mainly melodic) material on the internet.

abc file Music notated in **abc** format using characters either on paper or in computer files.

abc tunebook An **abc** file containing more than one tune.

ASCII Acronym for American Standard Code for Information Interchange.

Bardic poetry In Gaelic society in the West Highlands of Scotland, bardic poetry was generated by professional poets to praise their Chieftain's activities. The poetry was maintained in the cultural memory through oral transmission. Fragments have been kept alive over the centuries and incorporated into other traditional musics of the region, such as waulking songs. The Scots Gaelic poet Somhairle MacGill-Eain (Sorley MacLean), who died in 1996, was considered by some to be carrying on this ancient tradition.

Beatings The drum arrangements for a Scottish pipe band.

Bouzouki A long-necked stringed instrument originating in Greece and later adopted in the 1970s by Irish traditional musicians because of its suitability as a backing instrument. It has similar qualities to the mandolin but with added depth and resonance and can be used to provide melodic, harmonic and rhythmic support. Unlike the Greek bouzouki, where the double courses are tuned in octaves, the strings are tuned in unison pairs like so: G2D3A3D4 or A2D3A3D4. Dónal Lunny popularised its use in Irish traditional music after it was introduced to Irish traditional music by Alec Finn, Johnny Moynihan and Andy Irvine. It has made a significant impact on the Irish traditional music scene (and Scots to a lesser degree).

Birr A Scots ornament, especially of fiddlers (also called a triple).

Bodhrán An Irish frame drum originally used in rituals such as Wren dances

Bothy *Scots*; a cottage or hut for farm workers.

The Bothy Band (1975-1979) was an Irish band involving Dónal Lunny (bouzouki), Paddy Keenan (uilleann pipes), Matt Molloy (flute), Paddy Glackin (fiddle), Tony

MacMahon (accordion), later joined by Míheál (guitar) and Tríona Ní Dhomhnaill (clavinet), Tommy Peoples (fiddle) and Kevin Burke (fiddle).

Canntaireachd (Scots Gaelic) a system of vocables and notation used in the teaching of piobairreachd

CD-ROM An abbreviation for *Compact Disc Read-Only Memory*. A CD-ROM is an optical data storage medium that uses the same format as audio compact discs and is readable by any computer with a CD-ROM drive.

Ceilidh A social and cultural gathering amongst the Gaelic-speaking communities of Scotland and Ireland; a meeting where music, storytelling, song and dance are performed for entertainment.

Ceòl The Gaelic word for music

Ceòl-beag (Scots Gaelic) the repertoire of the Scottish Highland bagpipes described as 'small' music, which consists mainly of dances such as reels, marches etc. (compare Ceòl-mór).

Ceòl-mór (Scots Gaelic) the 'big' music of the Scottish Highland bagpipe repertoire consisting mainly of Piobairreachd

Clairseach (Scots Gaelic) the oldest of the traditional Scottish instruments, the clairseach (or clarsach) is a harp, originally strung with brass wire. It was revived in the Victorian era and again in the 1970s. The modern instrument usually has nylon or gut strings though some players use metal ones.

Commodification The turning of a product or service into a commodity that can be bought or sold within a consumer society.

Cran Irish ornament associated with the Uilleann pipes.

Crunluath The final variation of a piobairreachd before returning to the ground.

Djembe A west African drum played with the hands

Downloading The copying or transferring of data or a program from one computer's memory to another.

Drum'n'bass A genre of popular western dance music of the club scene with its origins in the techno music of the late 1980/90s featuring fast drum beats and sampling.

Emic and Etic Terms used in anthropology, linguistics, and in this instance ethnomusicology to refer to two different kinds of data concerning human musical behaviour. An *emic* account is a description of behaviour in terms that are meaningful (consciously or unconsciously) to the insider.

An *etic* account is a description of behaviour in terms familiar to the observer, or the outsider.

Gift-sharing An economic exchange system of goods or services that is not dependent on the payment or receipt of money.

Gracings *Scots;* Another name for ornamentation.

Gué A two stringed bowed fiddle from the Shetland Isles

Jpeg Jpeg stands for *Joint Photographic Experts Group*. It is a commonly used method of compressing photographic images. The file format that employs this compression is also called Jpeg and is the most common format used for storing and transmitting photographs on the internet.

Mandola An instrument of the mandolin family played in Irish, Scottish and English traditional music ensembles today.

Mandora A type of small lute played throughout Europe in amateur or professional ensembles in the C16th.

Maqam A set of traditional Turkish scales with microtonal variations.

Morris dancing A form of English folk dance.

MP3 An MP3 is a computer file that compresses audio, greatly reducing the amount of data while maintaining a fairly high sound quality for the listener.

Neumes A very early form of notation, neumes were a series of symbols used before the C14th to indicate melismatic phrases to be sung in sacred music.

Ogam An ancient Irish system of notation dating back at least to the C6th. One of its uses was as harp tablature.

Pìobairreachd (Scots Gaelic) also spelled *pibroch*. This is the 'big' music of the Scottish Highland bagpipe repertoire composed mainly for ceremonial purposes e.g. salutes or laments.

Pìob-mhór (Scots Gaelic) Great pipes or Highland bagpipes

Planxty An old style of ceremonial instrumental composition written by harpers in honour of their patrons.

Polska A Swedish dance form with three (often irregular) pulses to a meter. There are many rhythmic variations within this simple format. The sections of the tune also vary in length and all are specific to the regional or local dance variant with which the tune is associated.

Puirt-a-beul (Scots Gaelic) a Hebridean form of vocal music that is deemed by some to be instrumental in that the tune is 'diddled' without words.

Quicktime A digital video technology capable of handling various formats of digital video, sound, text, music etc. It was developed and produced by Apple-Mac.

Regionality In this context it is the state in which musical identity is influenced by notions associated with a particular geographic region, as opposed to a national or local identity.

Roll Irish ornament (fiddle, flute) similar to a classical *turn*

Scordatura Translated literally from the Italian as *mis-tuning*, scordatura means any tuning of the strings of a violin/fiddle that is different from the normal g d a' e" tuning. Some more common ones are a d' a' e" and a d' a' d".

Sean-Nós A form of traditional Irish solo singing that employs much ornamentation and microtonal detail.

Session An informal gathering either in a public or private house where musical material can be interchanged for the purpose of practicing. More recently sessions have come to be looked on by some as entertainment.

Set A selection or medley of dance tunes played in a particular format.

Snap A rhythmic feature that characterises many traditional Scots fiddle tunes, a snap is a very short note played on the beat followed by a longer one.

Strathspey A dance form unique to Scotland originating in the late C17th in the Spey valley in Inverness-shire.

Tablas A pair of drums (tabla and duggi) that provide the fundamental rhythmic structures around which Indian classical music is based.

Taorulath The third section of a piobairreachd.

Text-messaging Also known as texting, it is the sending of short messages between digital mobile phones.

TMT Acronym used in this paper to denote the transmission of traditional music.

Trow In Shetland folklore a trow is a kind of fairy. They were partial to music and many tales tell of them abducting local musicians to play for them.

Turning A part or section of a traditional dance tune.

Uilleann pipes Meaning 'elbow' pipes, these Irish bagpipes have a chromatic range of two octaves. They have a chanter, three drones and the modern instrument also has a set of regulators to provide some harmonic support.

Urlar A theme or ground on which the variations that constitute a piobairreachd are based.

Usenet group This is an abbreviation from UNIX user network. A usenet group is a communications medium sustained among a large number of servers that store and forward

messages to one another. Users read and post messages known as articles to bulletin boards known as newsgroups.

Waulking song A traditional work song generally sung by groups of workers in the Western Isles of Scotland. Waulking songs usually have a call and response format and incorporate a variety of texts from different sources, including bardic poetry.

BIBLIOGRAPHY

This thesis draws on a variety of sources. For the purposes of this bibliography they have been divided into the following categories:

1   Books
2   Published articles
3   Web-published articles & papers
4   Tune collections
5   Unpublished articles & papers
6   Workshops
7   Web sites
8   Discography
9   Archival collections
10   Author's interviews & correspondence
11   Other information sources

1   Books

Alburger, Mary Anne: *Scottish Fiddlers and their Music* (London; Hardie Press, 1996)

Baker J., Beach D. & Bernard J. eds.: *Music Theory in Concept & Practice* (New York; University of Rochester Press, 1997)

Barz, Gregory F. & Cooley, Timothy J., eds.: *Shadows in the Field: New Perspectives for Fieldwork in Ethnomusicology.* (New York; Oxford University Press, 1997)

Bohlman, P & Nettl B: *Comparative Musicology and Anthropology of Music* (Chicago & London; University of Chicago Press, 1991)

Bohlman, P: *World Music: A Very Short Introduction* (Oxford & New York; OUP, 2002)

Breathnach, Breandán: *Ceol Rince na hÉireann* (Dublin; An Chéad Chló,1976)

Bucknum, Mary Russell, Post, Jennifer C; Sercombe, Laurel: *A Manual for Documentation, Fieldwork & Preservation for Ethnomusicologists* (US; The Society for Ethnomusicologists Inc, 1994)

Byron, Reginald, ed: *Music, Culture & Experience: Selected Papers of John Blacking* (US; University of Chicago Press, 1995)

Campbell, J.L & Collinson, F., eds.: *Hebridean Folksongs II: Waulking Songs from Barra, South Uist, Eriskay & Benbecula* (Oxford; Clarendon Press, 1977)

Collinson, Francis: *The Traditional & National Music of Scotland* (London; Routledge and Kegan Paul Ltd., 1966)

_____: The Bagpipe fiddle & Harp (Newtongrange, Midlothian; Lang Syne Publications,1983)

Cooke, Peter: *The Fiddle Tradition of The Shetland Isles* (UK; Oxford U.P., 1986)

Cooper, G. W. & Meyer, Leonard B: *The Rhythmic Structure of Music* (US; University of Chicago Press, 1960)

Gebesmair, A & Smudits, eds.: *Global Repertoires: Popular Music within & Beyond the Transnational Music Industry* (Aldershot, UK; Ashgate, 2001)

Gratton Flood, W. H.: *A History of Irish Music* (Shannon; Irish University Press, 1970)

Hardie, Alastair: *The Caledonian Companion* (London; EMI Music Publishing Ltd., 1981)

Hardie, Ian, ed.: *The Nineties Collection;* (Edinburgh; Canongate Books Ltd, 1995)

Helmholtz, Herman: *On the Sensations of Tone* (New York; Dover Publications,1954)

Hindley, Geoffrey, ed.: *The Larousse Encyclopedia of Music* (London; Hamlyn,1979)

Horner, Bruce & Swiss, Thomas, eds.: *Key Terms in Popular Music & Culture* (Oxford; Blackwell Publishers Ltd. 1999)

Hunter, James: *The Fiddle Music of Scotland* (Edinburgh; Chambers, 1979)

Johnson, David: *Music & Society in Lowland Scotland in the Eighteenth Century* (Edinburgh, Oxford University Press, 1972)

_____: *Scottish Fiddle Music in the 18th Century* (Edinburgh, John Donald Publishers Ltd., 1984)

Kollock Peter & Marc Smith, eds.: *Communities in Cyberspace* (London; Routledge, 1999)

Krassen, Miles, ed.: *O'Neill's Music of Ireland* (NY; Oak Publications,1976)

MacDonald, Keith Norman, ed.: *The Skye Collection* (Ontario, Canada; Scott's Highland Services, 1986)

McCarthy, Marie: *Passing it On: The Transmission of Music in Irish Culture* (Cork University Press,1999)

Merriam, Alan: *The Anthropology of Music* (USA; Northwestern University Press, 1964)

Moore, Brian C. J.: *Introduction to The Psychology of Hearing* (London: MacMillan, 1977)

Myers, Helen: *Ethnomusicology: An Introduction* (London; The MacMillan Press, 1992)

_____: *Ethnomusicology: Historical and Regional Studies* (London; The MacMillan Press, 1993)

Nettl, Bruno: *Folk and Traditional music of the Western Continents* (U.S.;Prentice Hall Inc., 1973)

_____: *The Western Impact on World Music: Change, Adaptation & Survival* (N.Y.; Schirmer Books, 1985)

Ó Boyle, Seán: *Ogam: The Poet's Secret* (Dublin; Gilbert Dalton, 1980)

Ó Canainn, Tómas: *Traditional Music in Ireland* (London; Routledge & Kegan Paul, 1978)

Ó Neill, Capt. Francis, ed.: *The Dance Music of Ireland* (Dublin; Walton's Musical Instrument Galleries Ltd.,1907)

Ó Súilleabháin, Micheál & Thérèse Smith, eds.: *The Local Accent* (Limerick; University of Limerick, 1997)

Parkes, Alan: *An Introduction to Computable Languages & Abstract Machines* (London; International Thomson Computer Press; 1996)

Sadie, Stanley, ed.: *New Grove Dictionary of Music & Musicians* 2nd edition vol. 18: (London; MacMillan Publications Ltd., 2001)

Shaw, Margaret Fay: *Folksongs and Folklore of South Uist* (London; Routledge & Kegan Paul Ltd.,1955)

Shelemay, Kay Kaufman ed: *Ethnomusicology: History, Definitions and Scope* ed. (New York & London; Garland Publishing Inc., 1992)

Skinner, James Scott: *A Guide to Bowing; Strathspeys, Reels, Pastoral Melodies, Hornpipes etc.* (Edinburgh; The Hardie Press, 1984)

Skinner Sawyers, June: *The Complete Guide to Celtic Music* (London; Aurum Press, 2000)

Sloboda, John A. ed.: *Generative Processes in Music: The Psychology of Performance, Improvisation & Composition*(Oxford; Clarendon Press, 1988)

Standage, Tom: *The Victorian Internet* (London; Pheonix, 1998)

Stokes, Martin ed.: *Ethnicity, Identity & Music*; (USA; Berg, 1994)

Subotnik, Rose Rosengard: *DeConstructive Variations: Music & Reason in Western Society* (Minneapolis & London; University of Minnesota Press, 1996)

Woods, Fred: *Folk Revival: The Rediscovery of a National Music* (Poole, Dorset; Blandford Press, 1979)

2   Published Articles

Chapman, Malcolm: 'Thoughts on Celtic Music; The Musical Construction' in *Ethnicity, Identity & Music*; ed. Martin Stokes (USA; Berg, 1994)

_____: 'The Music Industry' in *Ethnomusicology: An Introduction;* ed. Helen Myers (London; MacMillan, 1992)

Chauduri, Shubha: 'Preservation of the World's Music' in *Ethnomusicology: An Introduction;* ed. Helen Myers (London; MacMillan, 1992)

Cooley, Timothy J: 'Casting Shadows in the Field: An Introduction' in *Shadows in the Field: New Perspectives for Fieldwork in Ethnomusicology*; eds. G. Barz & T Cooley (Oxford University Press, 1997)

Cumming, T: 'Whisky & Corduroys'; *The Guardian* (London, 27.4.02)

Dalrymple, William: 'When Buddha was Sacked' *Guardian Review* (London, 28.09.02)

Ellingson, Ter: 'Transcription' in *Ethnomusicology: An Introduction* ed. Helen Myers (UK; The MacMillan Press Ltd, 1992)

_____: 'Notation' in *Ethnomusicology: An Introduction* ed. Helen Myers (UK; The MacMillan Press Ltd, 1992)

Herzog, George: 'Study of Native Music in America' in *Ethnomusicology: History, Definitions and Scope* ed. Kay Kaufman Shelemay (New York & London; Garland Publishing Inc., 1992)

Irwin, Colin: 'Folk Dancer's Choice' *FRoots Magazine #213*; ed. Ian Anderson (London; Southern Rag March 2001)

King, Andrew & King, Dominic: 'King v King' in *M #1*, (London; PRS Ltd., Autumn 2001)

Kollock Peter: 'The Economies of Online Cooperation: Gifts & Public goods in Cyberspace' in *Communities in Cyberspace*; eds. Marc Smith & Peter Kollock (London; Routledge, 1999)

Malm, Krister: 'Globalisation-localisation-homogenisation-diversification & other Discordant Trends: A Challenge to Music Policy Makers' in *Global Repertoires: Popular Music within & Beyond the Transnational Music Industry;* eds. Gebesmair, A & Smudits, A (Aldershot, UK; Ashgate, 2001)

Marvin, Elizabeth West: 'Tonal/Atonal; Cognitive Strategies for Recognising Transposed Melodies' in *Music Theory in Concept & Practice*: eds. Baker J., Beach D. & Bernard J. (New York; University of Rochester Press, 1997)

McCann Anthony: 'All that is Not Given is Lost: Traditional Music, Copyright & Common Property' in *Ethnomusicology vol 45 no.1*, ed. Bruno Nettl (University of Illinois Press; Society for Ethnomusicology, Winter 2001)

Merriam, Alan P: 'Definitions of "Comparative Musicology" and "Ethnomusicology": An Historical-Theoretical Perspective' in *Ethnomusicology: History, Definitions and Scope* ed. Kay Kaufman Shelemay (New York & London; Garland Publishing Inc., 1992)

Myers, Helen: 'Ethnomusicology: Introduction' in *Ethnomusicology: An Introduction* ed. Helen Myers (UK; The MacMillan Press Ltd, 1992)

Nettl, Bruno: 'The State of Research in Ethnomusicology, and Recent Developments' in *Ethnomusicology: History, Definitions and Scope* ed. Kay Kaufman Shelemay (New York & London; Garland Publishing Inc., 1992)

_____: 'Historical Aspects of Ethnomusicology' in *Ethnomusicology: History, Definitions and Scope* ed. Kay Kaufman Shelemay (New York & London; Garland Publishing Inc., 1992)

Nettl, Bruno: 'Ethical Concerns and New Directions: Recent Directions in Ethnomusicology' in *Ethnomusicology: An Introduction* ed. Helen Myers (UK; The MacMillan Press Ltd, 1992)

Pressing, Jeff: 'Improvisation: Methods & Models' in *Generative Processes in Music: The Psychology of Performance, Improvisation & Composition*; ed. John A. Sloboda (Oxford; Clarendon Press, 1988)

Peterson, Richard A: 'Globalisation & Communalisation of Music in the Production Perspective' in *Global Repertoires: Popular Music within & beyond the Transnational Music Industry* ;Eds. A. Gebesmair & A. Smudits (Aldershot, UK; Ashgate, 2001)

Rice, Timothy: 'Toward a Mediation of Field Methods and Field Experience in Ethnomusicology' in *Shadows in the Field*; Barz G. F & Cooley, T J. eds. (Oxford University Press, NY 1997)

Sant Cassia, Paul: 'Exoticising Discoveries & Extraordinary Experiences: 'Traditional' music, Modernity & Nostalgia in Malta & Other Mediterranean Societies' in *Ethnomusicology vol. 44 #2*; ed. Bruno Nettl (University of Illinois Press; Society for Ethnomusicology, Spring/Summer 2000)

Seeger, Charles: 'Preface to the Critique of Music' in *Ethnomusicology: History, Definitions and Scope* ed. Kay Kaufman Shelemay (New York & London; Garland Publishing Inc., 1992) p104 Originally published in *Inter-American Music Bulletin 49 in 1965*

Théberge, Paul: 'Technology' in *Key Terms in Popular Music & Culture* ;Eds. Bruce Horner & Thomas Swiss (Oxford; Blackwell Publishers Ltd. 1999)

Titon, Jeff Todd: 'Knowing Fieldwork' in *Shadows in the Field*; Barz G. F & Cooley, T J. eds. (Oxford University Press, NY 1997)

Udell, Phil: 'From Newfoundland to Bothy Culture' in *Rock'N'Reel Magazine*, ed. Sean McGhee (Cumbria, England; issue 30, 1998

3   Web-published Articles and Papers

Campin, Jack:'Scales and Modes in Scottish Traditional Music'
http://www.purr.demon.co.uk/jack/Music/Modes.abc (July 2002)

Gupta, A; Stahl, D; Whinston, A: 'The Internet: A Future Tragedy of the Commons'
http://cism.bus.utexas.edu/alok/wash_pap/wash_pap.html (July 1995)

Lee, Zina: 'Bringing Irish Traditional Music to the Global Schoolroom'
http://www.celticcafe.com (May 2001)

Noonan, Douglas: 'Costs of Innovation in the Commons'
http://www.free.eco.org/pub/FP/Costsofinnovation.html#item2 (©Free Inc.1996)

Raymond, Eric S: 'Homesteading the Noosphere'
http://www.tuxedo.org/~esr/writings/homesteading/homesteading
and
http://www.tuxedo.org/~esr/writings/cathedral-bazaar (April 1998)

Speek, Hans: 'Chord Scales and accompanying Irish dance music'
http://home.hccnet.nl/h.speek/dadgad/theory.html (1996)

Stock, Jonathan: 'Is Ethnomusicology Relevant to the Study of British Folk Music?'
http://www.shef.ac.uk/music/staff/js/js.html, (2001)

4   Tune Collections

Breathnach, Breandán: *Ceol Rince na hÉireann* (Dublin; An Chéad Chló,1976)

Bruford, Alan ed.: *Tocher #41, 44 & 45* (Edinburgh; Published by the University of Edinburgh School of Scottish Studies, 1987-88, 1992 & Winter 1992)

Fraser, Angus: *The Angus Fraser Collection* (Edinburgh; Taigh na Teud Music Publishers)

Glen, John: *The Glen Collection of Scottish Dance Music* (Highland Music Trust, 2001)

Hardie, Alastair: *The Caledonian Companion* (London; EMI Music Publishing Ltd., 1981)

Hardie, Ian, ed.: *The Nineties Collection* (Edinburgh; Canongate Books Ltd, 1995)

Johnson, David: *Scottish Fiddle Music of the 18th Century* (Edinburgh, John Donald Publishers Ltd., 1984)

Krassen, Miles, ed.: *O'Neill's Music of Ireland* (NY; Oak Publications,1976)

MacDonald, Keith Norman, ed.: *The Skye Collection* (Ontario, Canada; Scott's Highland Services, 1986)

Ó Neill, Capt. Francis, ed.: *The Dance Music of Ireland* (Dublin; Walton's Musical Instrument Galleries Ltd., 1907)

Robertson, James Stewart: *The Athole Collection* (Inverness; Balnain House, 1996)

Williamson, Robin: *English, Welsh, Scottish & Irish Fiddle Tunes* (New York; Oak Publications, 1976)

5   Unpublished Articles and Papers

Alburger, Mary Anne: 'Making the Fiddle Speak Gaelic' (Aberdeen University; North Atlantic Fiddle Convention (NAFCo), 26.11.00)

Blom, Dr. Jan-Petter: 'What Makes Music Dance?' (Aberdeen; NAFCo, 26.7.02)

Campbell, Katherine: 'Three Images of Scottish Fiddle Playing' (Aberdeen; NAFCo, 27.7.01)

Carroll, Liz: 'My Musical Journey' (Edinburgh; *Fiddle 2001* Festival, 24.11.01)

Cooke, Peter: 'Information on the Two Older Dulcimers in the Carroll Reece Museum, East Tennessee University' (1990)

Doherty, Dr. Liz; 'Queen of the Bow' (Edinburgh; *Fiddle '99* Festival, 23.11.99)

Eydmann, Stuart; 'From the Ridiculous to the Sublime: Some Early Recordings of Scottish Fiddle' (Edinburgh; *Fiddle '99* Festival, 23.11.99), 'Every Scottish Fiddle Record Ever Made III' (Edinburgh; *Fiddle2001*Festival, 24.11.01), 'The '70s Folk Revival and Fiddle Music' (Edinburgh; *Fiddle2000*Festival, 26.11.00) & 'Unravelling the Birl' (Aberdeen; NAFCo, 27.7.01)

Fraser, Alasdair: 'The Language of the Fiddle' (Aberdeen; NAFCo, 27.7.02)

Johnson, Dr. David: 'The Gows & Music Publishing' (Edinburgh; *Fiddle 2000*, 26.11.00)

MacAoidh, Caoimhín: 'The Legacy of John Doherty' (Edinburgh; *Fiddle2001*Festival, 24.11.01)

McGuire, Eddie: 'The Scottish Fiddle in New Music' (Edinburgh; *Fiddle '99* Festival, 26.11.99)

Sanderson G; 'The Effects of the Equal Tempered Scale on Old Scale Systems of Scotland & Ireland' (1999)

6   Workshops

Carroll, Liz: Edinburgh; *Fiddle 2001* Festival, 24.11.01

Doherty, Liz: Aberdeen; NAFCo, 26.7.02

Eden, Mats: Taunton; *Fiddles on Fire* tour, 12.2.95

MacAoidh Caoimhín: Edinburgh; *Fiddle 2001* Festival, 23.11.01

McManus, Tony: Edinburgh; *Fiddle '99* Festival, 23.11.99

Thorburn, Andy: Edinburgh; *Fiddle 2001*Festival, 25.11.00

7   Websites

http://www.bagpipecentre@hotmail.com

http://www.itma.ie/home/leaf1a.htm

http://www.musicaviva.com/abc/

http://pubweb.parc.xerox.com/docs/DigiTrad/9607-letter.html

http://home.btclick.com/scotsmusic/

http://www.lunasa.ie/nonflash/htm

http://www.jc/music/abc/FindTune.html

http://www.thesession.org/discussions/display.php/536

http://www.scoiltrad.com/resouces/resources.html

http://www.celticcafe.com

http://www.slowplayers.org/SCTLS/learn.html#kinesthetic

http://www.gre.ac.uk/~c.walshaw/abc/

http://www.capebretonet.com/Music/Stubbert/Tunes.html

http://www.interlog.com/~torocelt/abc_resources.html

http://www.mag.irish-music.net/Sessions/Sess1.htm

http://www.morandan.com/Music/Holland/Jerry_Tunes.html

http://www.music.gla.ac.uk

http://www.netreal.co.uk/stepdance

http://www.skyinbow.com/misc/toc.htm

http://www.shetland-news.co.uk/headline/98mar/fiddles/fiddles.html

http://www.ul.ie/~iwmc/micheal.html

http://www.geocities.com/Nashville/7088/abc4mac.html

http://celtic.stanford.edu/pub/tunes/abc2mtex/INTRO.html

http://www.argonet.co.uk/users/gatherer/scottish/mandopp/tabs/31dev.html

http://www.s-line.de/homepages/gerd_castan/compmus/notationformats_e.html

http://www.barfly.dial.pipex.com/

http://www.pasteur.fr/cgi-bin/pmtg/twikiABC/view/Main/AbcUsers

http://www.grovemusic.com/data/articles/music/0/038/03814.xml?section=music.03814#music.03814

http://www.musicaviva.com/

http://www.performance.salford.ac.uk/research/vmp

http://pubweb.parc.xerox.com/docs/DigiTrad/9607-letter.html

8   Discography

Bennett, Martyn: *Martyn Bennett* (Eclectic, 1996), *Bothy Culture* (Rykodisc, 1997), *Hardland* (CUILCD01, 1999)

Capercaillie: *Sidewaulk* (Green Linnet, 1989)

Duncan, Gordon: *The Circular Breath* (Edinburgh; Greentrax Recordings, 1997)

Four Men and a Dog: *Long Roads* (Castle Communications PLC, 1996)

Fraser, Alasdair & McManus, Tony: *Return to Kintail* (Culburnie Records, 1999)

Carty, John: *Yeh, That's All It Is* (Shanachie, 2001)

Lúnasa: *Otherworld* (licensed to Compass Records,1998)

Maclean, Dougie; *Dougie Maclean Live From the Ends of the Earth* (Dunkeld Records, 2000)

McGoldrick, Michael: *Morning Rory* (Manchester; Aughrim Records, 1996)

Peter Cooke, series ed.: *Scottish Tradition*; Archive material recorded and documented by the School of Scottish Studies, Edinburgh University (Tangent, 1950-1999)

Shooglenifty: *Whisky Kiss* (Edinburgh; Greentrax Recordings, 1996), *Venus in Tweeds* (Greentrax Recordings, 1994) & *Solar Shears* (Vertical, 2000)

Kinross & District Pipe Band: *Scottish Pipes & Drums* (ARC Music, 1999)

Cian: *Three Shouts from a Hill* (Cian Records, June 99-Oct 01)

Spyka: *Spyka* (Waulk Music, 2002)

9   Archival Collections

The Wighton Collection of music manuscripts bequeathed to Dundee Central Library reference department in 1884 by Mr. A J Wighton and examined by the author by permission of the curators David Kett & Brian Clarke, April 2001

10   Author's Interviews & Correspondence

Carleen Anglim	Interviewed 12.4.00
Martyn Bennett	Interviewed 10.11.99
Paul Bradley	Interviewed 6.4.00
Jack Campin	Interviewed 29.6.01; E-mail correspondence Autumn 2001 – Autumn 2002
Winifred Crawford	Interviewed 7.6.00
Peter Cooke	E-mail correspondence; Autumn 1999 - Summer 2001
Aonghas Grant	Interviewed 3.4.00: Postal correspondence with the author; Autumn 1999 - Summer 2001
Alastair Hardie	Interviewed 23.11.01
Kate Ross	Interviewed 29.1. 02
Sean Smyth	Interviewed 7.8.00: E-mail correspondence with the author spring 2001

11   Other Information Sources

Free Software Foundation, Inc. 675 Mass Ave, Cambridge, MA 02139, USA

ITMT (Internet Traditional Music Transmission) Survey 2001 - This survey took the form of a questionnaire devised by the author. It was designed specifically to discover the extent of online practices amongst traditional players of all ages and abilities as well as collect data pertaining to opinions on all forms of TMT. The survey was carried out in a real-time environment so as not to discriminate against those with no online experience.

Breda McKinney	(University College, Cork) In conversation with the author on the singing tradition of Inishowen, County Donegal, April 2004
Simon McKerrell	(University College, Cork) In conversation with the author on contemporary piobaireachd practices, April 2004