THE EVOLVING KEYBOARD STYLE OF CHARLES IVES

BY

MICHAEL JOHN ALEXANDER

Volume One: Text

Submitted as a Thesis for the Degree of Doctor of Philosophy

The University of Keele 1984

ABSTRACT

The investigation focusses on the cultural, scientific and philosophical bases underlying Ives' striving towards both a unique kind of keyboard writing and its musical realization. His gradual accumulation of a multiplicity of received traditions in American art and folk music of his time, together with their attendant attitudes with respect to individual performance practice and improvisation, will be accounted for by a detailed examination of the major influences involved and their assimilation into the composer's innovative designs.

By enquiring into Ives' early musical environment and training, and noting his subtle modification and experimental reworking of nineteenth-century styles, discoveries made will provide a groundwork for further insights into the oral and notated elements of his keyboard language. Through his experiences as an improvising vaudeville accompanist and as a more passive observer of various surviving New England vocal traditions, the spiritual and acoustical manifestations revealed exert a strong influence on the way that the composer regards the piano's sonority. These diverse features coalesce into an original body of solo studies representing the essence of Ives' transcendentalism: where "the evolving" is both implicit in the determination of written notation and its contingent translation through live performance into musical meaning.

ACKNOWLEDGMENTS

I wish to thank the London agents of Peters Edition Limited, G. Schirmer Limited and Alfred A. Kalmus Limited for permission to use copyrighted examples of Charles Ives' published compositions; the Hinrichsen Foundation (London) for a generous grant of funds for the purchase of microfilm materials; the University of Yale Music Library for their location and reproduction. I am especially indebted to the Ives scholar Alan Mandel,Esq. and to my supervisor Professor Peter Dickinson for their friendly help and constant enthusiasm throughout the conduct of this research.

September, 1984.

CONTENTS

CHAPTER ONE

INTRODUCTION: SCOPE & PREVIEW OF THIS STUDY

Charles Ives is now recognized as the leading American composer of his generation. The past twenty years have seen most of his music come into print, and this has reached a wider public through live performances and gramophone recordings. Informal and learned articles have served as helpful introductions and surveys of his life's achievements: more searching examinations in the form of theses and dissertations have either consolidated or shone new light on a variety of these aspects. Not surprisingly most emanate from the United States. On this side of the Atlantic however, the position has not been particularly encouraging. Wilfrid Mellers' pioneering book Music in a New Found Land has scarcely led to a trickle of detailed interest here, though a few perceptive articles and radio talks have helped to emphasize Ives' importance. His music only occasionally appears on concert programmes with the result that average concert-goers can recall little more than the existence of a descriptive piano sonata, "some" symphonies and The Unanswered Question: truly an enigmatic situation. Nevertheless, the BBC continues to maintain a respectable number of performances from Ives' wide output.

Other than irregular hearings of his Concord Sonata the remainder of Ives' piano music is relatively unknown. While this work has attracted the public's attention more for its mythical "toughness" than its boldly evocative portraits of four Transcendentalist thinkers, Ives' other great sonata and smaller piano pieces are very rarely played. With nearly half of his keyboard manuscripts still unpublished, the composer's creative aims in this field are

given very incomplete exposure. Things could have been remedied by the publication of a few really detailed examinations of Ives' musical intentions; yet, only H.Wiley Hitchcock's purposely limited monograph Ives slightly alleviates the general poverty of discussion on the technical procedures adopted in the compositions. Conversely historical and philosophical lines of enquiry are well catered for in Frank Rossiter's Charles Ives & His America and Rosalie Sandra Perry's Charles Ives & The American Mind. Other than Sondra Rae Clark's article The Element of Choice in Ives' Concord Sonata and her university thesis on this work, to date there has been no systematic research into the nature of the piano writing.

The scarcity of any detailed information on this particular topic made an investigation into the many complex factors underlying Ives' formation of a unique keyboard style very necessary. It could have culminated in a discussion on the two piano sonatas; but, without a doubt such an approach would have proved cursory. These works deserve a thesis in their own right. Instead it has been decided here to deal with Ives' writing from the viewpoint of process and his gradual evolution into maturity; that is, a progressive examination from the earliest days of his musical apprenticeship through to the types of keyboard writing used in the sonatas. In this way the composer's later hybrid language can be accounted for through a careful scrutiny of its constituent parts. Even so, the whole subject of chronology presents problems for researchers: the datings of his compositions are often open to dispute due to Ives' constant habit of revising, rewriting, redeploying or just mislaying scores. An additional aggravation is the fact that only a mere handful of keyboard solos exist prior to 1902, and these alone will not suffice in building up an argument for explaining his experimental intentions. Being unable just to discount the

first twenty years of the composer's musical development, a slightly wayward approach has been chosen: this is to focus on wider forms of piano writing appearing as accompaniments and obbligati, and then from 1905 onwards applying increasing attention to the solo compositions. In this fashion, by initially casting a net over a large number of early keyboard writing styles, there can be a gradual crescendo of emphasis towards the solos which are dealt with later in the thesis. This methodology also happens to confirm the subsidiary purpose of the research: a kind of musicological fanfare for those wishing to follow with detailed investigations into the sonatas.

Traditional cause-and-effect analyses of Ives' piano writing will certainly not account for his music as heard. The whole issue of live performance here is a most important one, to such an extent that whenever possible there will be a combined examination into the dual elements of written composition and its translation into musical meaning. Such a path was made clear after having heard virtuosic performances of Ives' unpublished piano solos by the pianist-scholar Alan Mandel. His reconstructions and most committed realizations of these appeared to require research into both the composer's most iconoclastic treatments and indeed his whole notion of keyboard sonority. This viewpoint was confirmed by the revelation of hearing Ives' own recorded performances and improvisations on private gramophone recordings made in the 1930's and 1940's. They gave the impression that all was not well with many interpretations of his piano music: again this promoted a need to delve into rather more than just the notes on the printed page. Customary musical analysis would not be sufficient in accounting for the kinds of free spirit and constant searching implicit in Ives' own performances.

Accordingly the analytical methods adopted in this research

are strongly dependent on the styles of piano writing employed from one work, or section of a work, to the next. The many hybrid components which coalesce into his mature expressions necessitate a fluid approach which may range from applications of functional tonal analysis extending through a continuum of progressive chromatic disintegration towards atonality, more systematized procedures, or even a variable mixture of all these types. Such a constant stylistic flux is bound to influence the methods of discussion in the main body of the text. Only by a kind of analysis by contingency has it been possible to uncover a wealth of hitherto unknown approaches to piano composition in Ives' unpublished manuscripts. These new discoveries have provided a missing link offering major factors for interpreting the composer's musical and philosophical aims in the sonatas: they also highlight his own unique attitudes towards the performance of his piano writing in general.

As a preview, the research is set out as follows:-

Following this introduction, the early period 1882-1902 is examined in chapter two. It is concerned with Ives' practical and compositional training, first recorded experiments with percussive sounds, scales and arpeggios, intervals and private sketches at the piano. Such discoveries will be coupled with his observations of local musical life in Danbury. Ives' revolutionary and often iconoclastic attitudes in his own developing keyboard style and antipathy to the pianistic conventions of his time are used as pointers towards maturity.

The influences of folk performance, New England vocal styles and ethnomusicology blend in chapters three and four. The former deals with Ives' experience of popular music in Danbury, and later, at Yale and New York theatres. Here components from minstrelsy,

vaudeville and early ragtime are shown as major contributions in performing practice and improvisatory style to the piano writing around the turn of the century. The Three Page Sonata is examined as Ives' first mature solo. The latter chapter deals with the composer's interest in local singing traditions, textural heterophony and melodic variations. Their folk implications will point towards his consideration of thematic quotation and the way that he assimilated non-notated performance habits as concepts into notated piano music. The thesis appendix and associated musical examples show these features as applied in the slow movement of the First Piano Sonata.

Chapter five investigates Ives' attitude towards sound as a natural phenomenon, its spiritual implications and eventual translation into musical effect. His theories on notational spellings, microtones and aural distancing will be shown as important in determining his new language. Chapter six deals with the position and significance of Ives' unpublished Take-offs and Studies as major essays in solo composition. Written during the intensely experimental years of 1906-09 these pieces will be revealed as outstanding anticipations of the many styles, formations and performance mannerisms soon to appear in the completed piano sonatas. Chapter seven is the conclusion.

CHAPTER TWO

THE EARLY YEARS·1882-1902: NEW IDEAS FROM OLD THEMES

a) INTRODUCTION

Charles Ives did not formulate his unique musical style until the first decade of this century. Earlier, and like most American composers of the period, he learnt his means of expression via textbooks on traditional harmony and counterpoint. Progress was initially guided by the enlightened support of his father George Ives, and later under the more cautious eye of his professor at Yale University Horatio Parker. While a cursory glance at Ives' early compositions reveals strong influences from the music of late nineteenth-century German Romanticism and American drawing-room styles, this does not explain why he chose to make such a radical departure from these forms immediately after having completed his university education. Nevertheless, the seed of his interest in all kinds of performance practice whether inspired by art or folk music, lies very much in the many works written during the first twenty years of his creative life. This chapter traces chronologically the often very subtle experimental traits that occur increasingly in works steeped in nineteenth-century traditions. It was into these early compositions, which to modern ears often sound rather innocuous, that Ives began to inject completely new ideas and reassessments that were at variance with his traditional training. And through such discoveries a highly individual approach to keyboard writing was gradually to evolve.

Within his later reminiscences Ives recognized a distinction in these early works which he termed as being in "old" or "new" styles of composition.[1] Though not clearly defined, the former

category represented his public face in its nineteenth-century conformity; the latter referred to a much more personal and private viewpoint as in the experimental psalm settings and essays in linear counterpoint. These developed later into his mature and most original expressions. While such overtly iconoclastic scores will receive some coverage in this chapter, emphasis will be given primarily to more traditionally conceived tonal works as represented by the anthems, marches and songs with the experimental tendencies which stem from them. Where possible the composer's own writings are included as evidence; though it must be stressed that these are accounts set down on paper in the 1930's. Such memories were often clouded both with the passage of time, and Ives' fascination with ongoing musical theories, revisions or rationalizations of youthful experiments tried out over forty years earlier.

While every effort has been made to follow Ives chronology from 1882 through to the period around 1902 when he effected a radical change in musical style, there are times when it has been felt necessary to look forward to post-1902 pieces or indeed delve backwards once more to recall early works so that various points under discussion may be clarified. The reason for this is that there is no normal sense of cumulative development in Ives' musical apprenticeship: his keen ear and consummate ability to write in a broad selection of cross-cultural styles from an early age makes a strictly chronological investigation impossible.

His great contemporary Arnold Schoenberg, represents a perfect example of a composer who adhered more-or-less to a course of creative progression starting in the camps of Brahms and Wagner, later moving with very logical steps into his own clearly defined realms of atonality and serialism. Not so for Ives: with him there are few representative early compositions which show broad

avenues of stylistic development; especially as he was producing both tonal and atonal works in his late teens, and indeed concurrently for the remainder of his composing life. When considering the early development of any composer it is important to refer to contemporary streams of musical thought, but in Ives' case this is easier said than done. For, while much time could be wasted in identifying particular stylistic hallmarks derived from German Romanticism or American popular music, it would be impossible to cite parallel trends in European music: they just did not exist during the 1882-1902 period under discussion.

It is greatly to be regretted that very few of Ives' early keyboard works have survived, as this has made it necessary to enquire at the outset into all questions of early style whether involving his piano writing or not. The Memos record the composer's continuing obsession with piano experimentation during these years; yet, it is only works with accompaniments written towards the turn of the century that offer any guide to such experiments and Ives' gradual assimilation of popular elements from "ragging" and ragtime proper. Thus his penned recollections, which are particularly vivid during this period, fortunately make up for the dearth of solo material by describing how he progressed from "old" to "new" pianistic styles. The text which follows will give explanations to support Ives' own accounts of this transition provoked by his participation in informal music-making sessions at Yale. Such an environment caused creative ideas to occur to him on the spur of the moment, and these will be dealt with by examining his very free approach in the piano accompaniments to the violin sonatas and songs of the same period. Works written between 1898 and 1902 are included to demonstrate the progressive freedom offered by Ives' interest in all types of contemporary music-

making and his ever-broadening wish to write a music which encompassed the moods and inflections of both cultured and vernacular artistic expressions. The chapter will conclude with a summary of the composer's achievements in mixing his "old" and "new" styles into forms which looked both into his musical past as well as into the future polyglot of languages which emerged as his mature artistic statement.

b) DRUM EXPERIMENTS & HANDSHAPE CHORDS

Ives' earliest musical recollections date from 1882. At eight years of age he began to experiment with percussive rhythms on the family piano. A little later the local barber in Danbury gave him tuition on the rudiments of drumming and this resulted in him joining his father's band as a snare drummer in his twelfth year.[2] Such a beginning is not unusual until one realizes that Ives had a preference for formulating rather dissonant piano-drum chords which avoided using the primary degrees of the scale:-

> When I was a boy, I played in my father's brass band, usually one of the drums. Except when counting rests, the practising was done on a rubber-top cheese box or on the piano. The snare and bass drum parts were written on the same staff, and there were plenty of dittos. In practising the drum parts on the piano (not on the drum--neighbours' requests), I remember getting tired of using the tonic and dominant and subdominant triads, and Doh and Soh etc. in the bass. 3

Recognizing that both snare and side drums could only produce sounds of indefinite pitch Ives became dissatisfied with playing piano-conductor march arrangements where consonant pedals were used as inadequate substitutes. (ex.1). He felt that:-

> triads and chords without bites were quite out of place, or any combination that suggested fixed tonalities. 4

Accordingly, he set about trying out some new ideas. Very soon he had put together a piano-drum vocabulary which experimented with various kinds of finger placings and handshapes:-

> So ((I)) got to trying out sets of notes to go with or take-off the drum--for the snare drum, right-hand notes usually closer together--and for the bass drum, wider chords. They had little to do with the harmony of the piece, and were used only as sound-combinations as such. For the explosive notes or heavy accents in either drum, and fist or flat of the hand was sometimes used, usually longer groups in the right hand than left hand. 5

Ives' allocation of different kinds of handshape to correspond with contrasts of drum size and timbre ties in well with the format of percussion batteries used in New England marching bands of the post-Civil War period. At that time:-

> Marching, and most concert, percussion were snare ('small') drum(s), bass drum, and cymbals. The snare drum was the deeper pitched parade or field drum, not the much shallower 'orchestral' snare drum. One cymbal was commonly attached to the top of the bass drum so that the bass drummer could strike the drum and crash the cymbals simultaneously. 6

The composer's division of labour between both hands of his piano-drummer also resembled a band's usual preference for a limited number of percussionists who often doubled up on instruments.

> This assured a far better co-ordination than two separate players, especially for impromptu 'effects'. In band parts simply labeled 'Drums' (snare drum and bass drum on the same staff), it was always understood that the cymbals play along with the bass drum, except where indicated otherwise. 7

Ives' descriptions of his piano-drum handshapes, while giving details as to how the hands are to be placed in relation to keyboard range, are hardly explicit on the finger formations themselves. However, he does mention that:-

> A popular chord in the right hand was Doh♯-Me-Soh-Doh♮, sometimes a Ray♯ on top, or Doh-Me-Soh-Ti, and one with two white notes with thumb, having the little finger run into a 7th or octave-and-semitone over the lower thumb note. The left hand often would take two black notes on top with thumb, and run down the rest on white or mixed. 8 (ex.2).

Justification for this unusual kind of musical potential is offered in the composer's own words:-

> In this example, what started as boy's play and in fun, gradually worked into something that had a serious side to it that opened up possibilities—and in ways sometimes valuable, as the ears got used to and acquainted with these various and many dissonant sound combinations. 9

His discovery of new chords from what, initially at least, appeared to be purely arbitrary finger placings emphasizes that even as a child Ives began to form experimental ideas out of his own empirical findings; an approach which was to continue throughout his whole creative life.

While there is no doubt that Ives formulated his concept of handshape piano-drum chords very early on, there is no evidence to show that he employed them in early compositions. Essentially they were private experiments, as were those included in his notebook sketches and burlesque exercises from around the same period. Only after 1900 did he incorporate such ideas systematically into serious compositions. Prior to this date however, such chords are rare, occurring only in march songs written at Yale from 1894 onwards. His collection of 5 Street Songs and Pieces from the album of 114 Songs includes drum chords as onomatopoeic imitations of either: a) the "roll-off" which "signals the rest of the band to raise their instruments and begin to play" or, b) the "stinger" —— unpredictably "detached, accented, second beat notes which close some marches." [10] Such devices were second nature to Ives the young snare-drummer; and though printed band parts usually included them, they were frequently rewritten or improvised on the spot. The Circus Band (?1894), A Son of a Gambolier (1895) and possibly drum sections of Old Home Day (?1913) from the above collection all relate to his early quickstep marches written in the 1880's; though here dissonant piano chords heighten the overall effect where imitation "roll-offs" and "stingers" are intended. The Circus Band is Ives' earliest composition to incorporate piano-drum clusters: roll-offs appear in bars 41-4 (ex.3). A Son of a Gambolier, though not using cluster techniques, is a good example of a piano transcription from an earlier band score:

here drum effects sound in octaves at the start of the chorus trill. This song is full of syncopations associated with the drum corps,as can be seen in its strong downbeats: notably at the roll-offs in bars 67-9 and 125-7. It closes with a stinger.

In addition to a band's roll-offs and stingers there was the usual drum "cadence" or "street beat" played in regular patterns while on parade. However, Ives increasingly preferred what he termed as impromptu "boy's fooling" in day-to-day performances:-

> those parts in later 'band stuff' frescoes which are more like situations Ives has made up or reconstructed--his barrel of hard cider, fermented over time, of cut-ups and take-offs, near-misses, instant adjustments and frenzied fooling around.11

Such vernacular styles are not recorded in his writing until after 1900 when he became obsessed with the complexities of ragtime syncopation. Both the Country Band March and its companion the Overture & March '1776' of 1903 make full play with piano-drum clusters: these theatre band scores point towards Ives' later orchestral pieces with their own intricate parts for piano obbligato.

Looking at the various kinds of marches taken from the 114 Songs they show that as a boy Ives was well acquainted with the art of making piano arrangements and piano-conductor scores from original instrumentations. Printed publications of the period were thick in texture, if only to conserve obbligati wind lines from the band parts. Any piano reduction could omit these if required, or possibly additional counter-melodies would be written in readiness for eventual inclusion within the band scoring. Ives knew that the local town band was an ad hoc affair depending on the number of instrumentalists available at any particular time, and the doubling up of parts or omission of others proved a common occurrence. At Danbury he would have learnt the skill of such elastic

scorings and no doubt upon entry to Yale he also had to contend with fluctuations in the numbers of band members available for rehearsals. Accordingly he came to regard the piano as a kind of musical leader in the instrumental proceedings; for, "the pianist usually led—his head or any unemployed limb acting as a kind of Ictusorgan."[12] No doubt the absence of a percussionist caused Ives to improvise a piano-drum part when required.

His interest in such onomatopoeic chords is certainly not unique for the period. Thirty years earlier the pianist Louis Gottschalk had also used drumming ostinati in his opus 48 concert paraphrase L'Union; and from the eighteenth century, Koczwara's programmatic Battle of Prague along with a host of other novelty pieces made full play with similar noise-making effects. It is reasonable to assume that Ives was acquainted with such devices, though in his own experiments he began to regard them with more than usual interest; they had musical potential, as shown in the marches cited above. However, from 1900 Ives begins to use such handshape chords not as percussive appendages, but as compositional features in themselves. Gradually they are incorporated into works which often have little or no connection with the drumming of march music. Obviously around this time, that of the earlier movements of the violin sonatas, he took the possibilities of these dissonances seriously while still maintaining an interest in interpolating pieces like the Country Band March and Overture & March '1776' with "boy's-fooling" piano clusters.

There is one work though which for the first time shows Ives' progression towards new handshapes and figurations: they appear to shape its overall harmonies and feeling for a kind of dreamlike stasis. The Largo, conceived in 1901 from the Pre-First Sonata originally for violin and organ but rearranged for violin, clarinet

and piano, significantly coincides with Ives' initial "ragging" experiments in the Ragtime Dances for theatre orchestra of the following year. It is both contemplative and mysterious in mood. Undulating ostinatos, assymetrical rhythms in quaver pulse with sad and veiled major tonalities make up the work's outer sections. In contrast, its central portion translates the gentle syncopations into "ragging" semiquaver movement. These are punctuated by roll-offs with piano-drum clusters and dissonant chords which often seem to follow arbitrary placings of the hands. Such effects appear quite out of context with surrounding musical material: they intentionally disturb the placid air of the piece. Ives gives reasons for his stylistic incongruities in some notes to the original Pre-First Sonata; though in the Memos extract below he retitles the work, explaining that:-

> The Second Sonata (called the First) was written ((in its final form)) in 1903 and 1908, and is a kind of mixture between the older way of writing and the newer way. 13

Exact dating of nearly every movement of the four violin sonatas is problematic. But the present Largo is an excellent example of an early piano accompaniment which was written in the "newer" way and performed "at ((an)) Organ recital Central Presb.Church, 57th St., New York, Dec. 16, 1901." [14] Here Ives' change of compositional style is based very much on the possibilities offered by various handshapes, chordal patterns and syncopated ostinati; it shows the beginnings of a new, freer and more empirically derived approach towards musical invention. This is in stark contrast to the rich late romantic language prevalent in the works of his contemporaries both in America and on the Continent. Much of the Largo shows the composer literally doodling with his materials. Nearly all its accompaniment is based upon dissonant or

consonant chords and figurations which comfortably fit the large hands that Ives possessed. Both violin and clarinet obbligati, though strongly romantic in line, just meander rather aimlessly with little sense of melodic direction, other than in central parts of the piece. A piano-drum roll-off in bar 21 clearly derives from its similar use in the earlier march songs mentioned above.

The 1901 Largo is but one important item from the rejected Pre-First Sonata, a seminal work marking Ives' gradual transition between older more romantic and newer empirically-based styles. Though discarded, many of its movements were salvaged, rewritten and included in parts of the published violin sonatas: all have accompaniments which draw freely from the composer's early piano-drum chords, as well as his experimental extensions of these types into dissonant handshape clusters and figurations. Ives continued to be obsessed with them throughout his piano accompaniments, obbligati and solos. The late song General William Booth Enters Into Heaven (1914) for instance, is a veritable compendium of such effects.

The translation of drum-corps routines into dissonant handshape chords was certainly Ives' first foray into the territories of keyboard experimentation. Starting as fun, as shown in the march songs, and then taken seriously and incorporated as basic material into many of the violin sonatas, it becomes increasingly difficult to distinguish between drum-chords and their offshoot handshape clusters from 1900 onwards. However, at this time pure melodic writing still takes precedence over percussive effects within Ives' piano writing. Soon the rhythmic assymmetries of "ragging" styles from popular music of the period were to revolutionize his experiments and attitudes toward the use of handshapes.

c) EMERGING HALLMARKS OF STYLE

Harmonic Trends in the Early Vocal Works.

While Ives' earliest experiments involved piano imitations of drum sounds, his first real efforts at serious composition were in the mould of contemporary "Victorian" styles of anthem, glee and song writing. As a secret diversion he was also producing a private collection of experimental sketches and burlesque exercises; though it was not until later that parts of these were to be included in the important psalm settings and mature piano writing. The very early vocal works however, are essentially essays in church styles formulated under his father's instruction. With so few keyboard pieces surviving from this period it is necessary to draw upon these choral scores and some contemporary songs in order to trace Ives' musical development and illustrate certain mannerisms which he was to exploit in piano writing from the turn of the century onwards.

In 1888 as "the youngest organist in the state" at the age of fifteen, Ives performed either as a locum or full-timer at various Danbury churches. Wendell Clarke Kumlien says of the composer's early anthems that in common with other choral pieces of the period they were rather restricted,showing the following influences:-

1) hymns from the several Protestant hymnals of churches attended,
2) gospel songs and hymns sung at camp meetings and occasionally in church, and
3) church anthems of the 'post-Mendelssohn' style from such composers as John Stainer, Dudley Buck, Harry Rowe Shelley, F.Flaxington Harker and others of this generation, who wrote for volunteer church choirs in America and England. 15

Accordingly it does not appear that the young Ives had access for instance to much more than octavo settings published by firms like G. Schirmer or Novello together with a few close harmony and SATB copies of popular-style glees. Other than some exposure to the naive

chromaticism of gospel hymns, Ives would surely have additionally come in contact with "gems" from the operas and oratorios of Spohr, Mendelssohn and Gounod sung in many middle-class American drawing rooms.

These pre-Yale anthems, being the composer's first essentially public musical expressions, are rather bland perhaps for this very reason. But Kumlien offers more general explanations:-

> It is apparent to those who follow the styles of church music that from the 1880's to well after the turn of the twentieth century one style predominated—the Protestant church composer. This style has produced a lack of individuality and a "polite" or "urbane" atmosphere in the church, and is common knowledge—perhaps unmatched by any other period of music history. Even today there is the belief that the church music of Protestantism must follow this pattern if it is to be acceptable for church services. 16

It is not within the scope of this discussion to make a relative study of the specific American influences on Ives' choral writing other than to emphasize that his organ repertory in a recital programme given on June 12th 1890 includes the following pieces:-

Overture to William Tell . . . . Rossini, arr. Rheinberger.
March Pontificale . . . . . Lemmens, arr. Dudley Buck.
Home, Sweet Home . . . . . J.H.Payne/H.R.Bishop, arr. Buck.
Toccata in C (BWV 564?). . . . . J.S.Bach
Sonata No1 in F minor . . . . . Mendelssohn. 17

These items demonstrate potentially wider influences that the fifteen-year-old organist could have drawn upon as harmonic study materials for early compositions, in addition to the rather hermetic categories of vocal music given previously. His various posts enabled him to build up a repertory including both solo pieces and accompaniments to religious choral works. Furthermore, he had some opportunity of extemporizing during divine service as can be seen by a few hymntune interludes which survive.

The selected vocal works to follow have been carefully chosen to illustrate Ives' own preoccupations with contemporary style as he knew it, and also to highlight his interest in extending the

boundaries of chromatic but functional "Victorian" harmony further, towards dissonances which can usually be explained in terms of ambitious voice-leading. At Danbury however, Ives would have had little opportunity of hearing the kinds of contrapuntal intricacies occurring in the late Romantic styles of Wagner or Franck. More likely he seems to have been influenced by the harmonies of "barbershop slides" in gospel hymns and secular glees from nigger-minstrelsy whether notated or improvised by performers. Towards the end of the nineteenth century chromatic strains from popular styles had even begun to permeate the staid walls of New England churches: at this time it was often difficult to distinguish sacred from secular idioms. A modern-day analogy is appropriate here if one notes similarities between "rock" styles of the 50's and 60's with types of spiritual songs used in English and American evangelical churches.

With the kinds of conventional congregations that he was used to Ives knew that any experiments involving dissonances had to be introduced with the utmost tact. Thus the slight features to be discussed can hardly be termed as innovative, but rather as surreptitious yet reverent additions conceived by a constantly searching musical mind. Years later Ives' conscience pricked when he recalled his youthful dilemma:-

> And in playing ((new music)) at a service: is one justified in doing something which to him is quite in keeping with his understanding and feelings? How about the congregations, who were unused to the idiom, or rather to some of the sound combinations, and who might naturally misunderstand and be disturbed? When a body of people comes together to worship, how far has a man a right to do what he wants, if he knows by so doing he is interfering with the state of mind of the listeners who have to listen regardless and are helpless not to? 18

Clearly he was both sensitive and on his guard. Accordingly his very early scores can be regarded only as a faint direction post for much more experimental ideas that were to follow.

Psalm 42 "As Pants the Hart"(1885) for SATB choir and organ is the earliest of Ives' settings available for scrutiny. Written under his father's instruction, [19] it is very bold in conception being thickly scored with keyboard octaves doubling the chorus: this contrasts with the central tenor solo which is supported by an independently flowing 12/8 accompaniment in cavalry-march style. Though it is harmonically simple, this anthem makes expressive use of diminished-seventh chords, the piling of intervals as points of emphasis and underpins these with pedal points: all are details which figure very strongly in Ives' later compositions of the period.[20] The work's march-like feel comes out very strongly at the climax prior to its final "Amen". Here the words "World Without End" are anticipated in the accompaniment which resembles an incipit to a march strain (ex.4). Its closing bars recall the opening, using a final tonic pedal supporting a descending set of contrary-motion chords with a concluding barbershop slide to the tonic chord (ex.5). This last example shows, in common with late nineteenth-century styles, how Ives favoured organ pedal notes (and later on, inverted ones) to support the chromaticism above.

The anthem Turn Ye, Turn Ye (1889-90) while similar to the above is much more self-assured. It abounds with diminished sevenths (bb.3-4), chromatic vocal slides (b.7;bb.40-1), suspended ninths (b.5) and abrupt key changes (b.31 - tonic of F to g-minor): all manner-isms strongly relate to popular and gospel influences.[21] The accompaniment is scanty, having been reconstructed in part by John Kirkpatrick.[22] However, the original repeated chords at bars 19-26 show Ives to be building new dissonances out of accented passing notes with the use of unresolved tonic sevenths in d-minor alternating with a sharpened fifth i.e. $\begin{matrix} C & C \\ A & G\# \\ F & F \\ D & D \end{matrix}$. While such suspensions

are again customary for the period they do show Ives' relish at pushing his voice-leading towards parody. Crossing the Bar (1890)[23] is also considered to be rather traditional in style;[24] nevertheless, it continues to exploit chromatic side-slipping increasingly, as well as moving into distant and unprepared keys. Its expressive word-painting is illustrated by the common reiterative device — the ostinato: this often becomes a modus operandi in Ives' later writing for piano. Here, in bars 10–13, he favours related progressions through ostinato means stressing the dominant chord on the word "tide" (e.g. I–V, I–V, V–V, V–V). Soon after, at bar 16, there is a chromatic melodic rise at the phrase "When that which drew from out the boundless deep". Both examples, while clearly traditional in style show Ives' careful choice of musical manner used to bring out the substance of his texts. While naive word-painting is commonplace within such early anthems,he continues this tendency into many of his most experimental settings for voice or chorus. Anticipating events in his later cantata The Celestial Country (1898-9), the descriptive writing of Crossing the Bar with its triadic slides (bb.19-23) through a fourth ($^{C\flat}G\flat$, ^{a}E) using an augmented triad at "Twilight and evening bell"(bb.24-8) is strongly associative; increasingly non-functional harmonies are deployed for their emotional effect. However, there is one feature here which within the confines of this anthem appears to be quite innocuous yet points the way to later means of experimental organization. Example 6 shows a chain of traditional chordal progressions whose outer voices expand and contract in contrary motion from a central point. Clearly this shape has been determined by the chromatic rise of the soprano line followed by its fall: the bass moves as a kind of mirror. Such wedge shapes occur frequently in Ives' tonal writing. Later on though, when he had

progressed into "newer" ways of composition this kind of structure began to be applied to a variety of musical parameters concerned with the palindromic organization of intervals, textures, rhythms, range and overall form-arranged horizontally or vertically. It was many years before such systems were used in the piano writing.

Contrasting with the restrained styles of his anthems, the solo song At Parting (1889) seems freer in conception. It is adventurous in its chromaticism and makes great play with assymetrical phrasings and vagrant key changes. Exact dating is rather difficult: it first appeared in the Thirty-Four Songs of 1933 and may well have undergone some revision by then. We know of an early performance in 1889, as this is stated on an ink copy of the work,[25] and that at Yale Parker was perturbed by its bold dissonances.[26] But it is difficult to ascertain whether Ives tampered with the offending bars later on. He tells the full story of the song and the kind of dilemma between his father's and Parker's ways of teaching composition:-

> An instance shows the difference between Father's and Parker's ways of thinking. In the beginning of Freshman year, and getting assigned to classes, Parker asked me to bring him whatever manuscripts I had written (pieces, etc.). Among them, a song, At Parting —in it, some unresolved dissonances, one ending on a ((high)) E♭ (((in the)) key ((of)) G major), and stops there unresolved. Parker said, "There's no excuse for that—an E♭ way up there and stopping, and the nearest D♮ way down two octaves."—etc. I told Father what Parker said, and Father said, "Tell Parker that every dissonance doesn't have to resolve, if it doesn't happen to feel like it, any more than every horse should have to have its tail bobbed just because it's the prevailing fashion." 27

This exchange occurred in 1894, five years after the song's completion. It emphasizes that George Ives certainly approved of his son's unusual musical ideas. The Memos state that the manuscript version is a little less dissonant;[28] but the closing bars do contain some most interesting chords arrived at through suspension and the movement of converging voices in the right hand (ex.7).

Here the dominant-minor-ninth effect is produced by the vertical piling of major and minor-third intervals. These converge onto what can only be described as a new kind of handshape chord, completely unrelated to Ives' piano-drum patterns. This 1889 song is the first example in Ives' output which clearly demonstrates how his later theories of keyboard handshapes evolved. Matters of chromatic voice-leading and wide hand-span are of equal importance here as projected fingerings in the musical example show. Both elements seem to have developed side-by-side within Ives' early tonal compositions: this can also be seen in sections of the organ Variations on America and keyboard accompaniment to The Celestial Country. It is only when he turned towards a style which moved freely between tonality and atonality that such handshape chords become separated from their earlier chromatic connections and were used per se. Numerous examples occur in piano writing after 1900 and figure so strongly in the 1905 Three Page Sonata that such chords really form the raison d'etre of the work.

To sum up then. At Danbury Ives has little knowledge of contemporary harmonic developments in Germany, though his arrival at Yale in 1894 undoubtedly exposed him to these sources through his teacher. Nevertheless Parker's preferences were more in the direction of Brahms and Dvorak rather than Wagner. Ives arrived at his own harmonic style via the popular "Victorian" chromaticisms of salon and barbershop styles. Onto these he grafted his own theories of dissonant voice-leading which evolved essentially through keyboard experimentation into original handshapes. These together with contrary-motion wedges, expressive discords, reiterative ostinato progressions and wayward phrasings gradually became divorced from their basic tonal harmonic contexts by 1900. The style which resulted was soon to consist of intermittent movements

through tonal and atonal structures, but essentially embodying many experimental characteristics worked out during those early Danbury years.

Experiments with Intervallic Structures.

In addition to Ives' early anthems and songs, John Kirkpatrick's complete catalogue of the works contains a section entitled "Polytonal and Burlesque Exercises etc." It indicates that the composer had the habit of jotting down experimental fragments for their possible inclusion in his later works. Many of these musical scraps show that aside from writing traditionally-based choral works and songs Ives in private was trying out some quite revolutionary approaches to harmony and texture. Most bear little or no relation to the youthful works performed in Danbury. These exercises contain ideas that only came to fruition later, during the period 1902 onwards. Many show a preoccupation with unusual interval mixes, chords, arpeggios, palindromic arrangements, triadic textures and more general essays in polytonality. Section 7C of the catalogue records experiments in polytonal and whole-tone effects (1891?) as well as burlesque harmonizations on London Bridge (1891?) which mix keys of G over F♯, and F over G♭ (7C5). In the following year there are contrary-motion exercises with opening and closing wedges starting from the note C; also scales and wedges are formed with parallel triads (7C9-10, 13). By 1896(?) more burlesque exercises appear, with parallel triads moving in semitones against a held C chord (7C20).

Whether all such sketches were applied to the keyboard is open to debate; for, Ives' own accounts of experimental pieces only go back to his time as an organist in New York. Certainly unusual polychordal arrangements are recorded:-

> . . . in this concert at Central Presbyterian Church ((April 1902)), I played a short organ Prelude, with eight notes (C E G B♭, D♭ F A♭ C♭) pp in swell organ, pedal playing the main theme f under these eight notes, etc).. . . 29

These appear as interludes in The Celestial Country cantata (ex.8).

Henry Cowell[30] gives similar examples from the earlier interlude on the hymn Bethany (1892?) (ex.9)[31]. Other intervallic arrangements in the cantata are also covered by Ives' handshape experiments:-

> I do remember that, in playing the first and last choruses of ((the cantata, I)) would throw in 7ths on top of triads in right hand, and a sharp 4th ((F♯)) against a Doh-Soh-Doh in left hand. 32 (ex.10).

John Kirkpatrick[33] identifies such chords with added-note effects; though some may relate to a lost organ part. He also says that these shapes are later included in the Trio for violin, cello and piano (1904-11) second movement at bars 43-4. Similarly connections here can be made with Ives' use of drum chords which bear a striking resemblance to those cited above (ex.11). While the inclusion of added notes in Ives' accompaniments often seems to have been applied fairly arbitrarily just prior to 1900, the fragmentary sketches show that careful arrangements and experiments with systematized chord and interval structures had at least been worked out privately well before his entry to Yale in 1894.

The relationship between Ives' keyboard writing and his attitude towards the vertical piling of intervals can be traced to a few extant organ solos from this early period. The Variations on America (1891) is generally thick and inconsistent in chordal texture, even during its quieter moments. Often double-handed three or four-note triads are favoured, with close-position chromatic chords divided between hands. Here the subtle or transparent use of texture does not seem to have been a primary consideration; no doubt careful registrations were selected to avoid a muddy sound in performance. The work is a curious hybrid of

musical styles and cultural cross-overs. It bears little similarity with contemporary post-Mendelssohn scores like the American J.K.Paine's organ variations on the hymn Austria or those of J.C.H. Rinck on the same theme, which Ives played in 1891.[34] Instead,it relates more to post-Revolution national styles as represented by James Hewitt's very early variations on Yankee Doodle or the previously mentioned L'Union of Gottschalk which wrings every ounce of sentimentality from the patriotic fervour of Yankee Doodle, The Star-Spangled Banner and Ives' own special favourite Hail! Columbia, Gem of the Ocean! His own variations, like Gottschalk's before him, drew both from folk and popular performance materials to illustrate his independence from more academic styles of writing normally expected of up-and-coming composers of his generation. Clearly his major concern was to write a fun piece which delved slightly beyond the constraints of chromatic "Victorian" harmony as used by "serious" and "popular" musicians of the time. Both categories are represented in Ives' use of sliding barbershop diminished triads, especially at cadence points or bridge passages (variation II bars 6-7; variation III bar 12). There is also a continuing interest in contrary-motion wedge textures (variation V). While commentators like Hitchcock[35] and Rossiter[36] emphasize experimental contributions of the tentatively added "Ad Lib." bitonal interludes (the first between variations II and III placing F over D♭ chordings, and the second at variations IV and V with A♭ over F), the latter intimates that these may have been written well after the initial date of composition, even though Ives himself states that:-

> Father would not let me play them . . . as they made the boys laugh out loud, . . . 37

Obviously this would have occurred prior to his father's death in 1894. Eitherway such a bitonal mix here was contrived while Ives

was still a boy in Danbury. It concurs with similar harmonic experiments tried out slightly later in the experimental psalm settings.

There are however, rather more subtle anticipations of future developments within this work. Aside from more obvious examples of cross-rhythm and polytonality,[38] during its opening pages we can see Ives' punning sense of humour appearing in the use of a flattened seventh (b.15) and parallel harmonic shifts (bb.17 & 19): variation I continues this merriment in its exaggerated running semiquavers, chromatics and pregnant trill at bar 6. Probably the most chromatically daring section is in variation II where intentionally nauseating barbershop slides illustrate a common excess of the period. The final variation V contains some interesting textures derived from chromatically-filled sixth chords. The Allegretto section here (p.12) with virtuosic pedal part is not untypical of its genre. But in contrast, at bars 20-32, we see a kind of opening handshape contrived by the addition of an expanding chromatic part in the left-hand thumb and index finger (ex.12). Stark clashes resulting from the commonplace movement of accented passing notes give this variation quite an harmonic bite for the period. It also contains an optional "ad lib." section solely based on diminished chords: the "Big Buildup" before the storm of the concluding pedal cadenza. Probably the most interesting chord in the whole work solely derived from inner and outer voice-leading, and one which cannot be satisfactorily explained in terms of nineteenth-century usage, has its fleeting appearance in bar 46 of this final variation. Here the initial g-minor chord, with fifth fingers at upper and lower extremities, closes in chromatically passing through a whole-tone chord to a root-position triad in the tonic key (ex.13).

For a work conceived as early as 1891, Ives was already showing an interest in chord structures derived from accented suspensions

and extensions of voice-leading. Essentially these procedures were related initially at least with chromatic movements in "Victorian" harmony, and were Ives' own logical continuations of such counterpoints. Together with new handshapes developing from these, he was to continue this exploration well into the mature piano writing from 1900 onwards.

While the organ variations are concerned with the juxtaposition of styles in adjacent sections, the later Organ Prelude on Adeste Fidelis(sic) of 1897 practically abandons textbook harmony altogether. Contemporary with the later experimental psalm settings, this is a bold essay in modes, textures and contrary-motion wedge shapes. Again Hitchcock[39] explains the constituents of this piece but does not stress the importance of an organists's common technique of playing strong outer pedal notes used to enclose a central moving texture. While broadly related to Ives' earlier chromatic experiments, the resulting bimodality in the work, though disconcerting is nevertheless rather beautiful. Diatonic movement here is rare, being replaced with the working through of modal counterpoints. A good example occurs in the closing eight bars where the effect of left-hand diminished-seventh suspensions is obscured by the dissonance of the bimodal right-hand part; slow adagio tempo delays the effect of resolution even more. Taken separately the right and left-hand parts are rather traditional in their harmonic resolutions, but combined bimodally this sense of progression is completely masked. In addition Ives freely throws in sevenths to blur things even more,[40] and introduces mirror writing clearly related to the earlier burlesque exercises. Even in many compositions written from the turn of the century onwards he maintains a continuing handshape preference for vertically piling major, minor or mixed major-minor intervals: this practice could well have been initiated by his overuse of the

diminished-seventh chord in earlier tonal works and clearly demonstrated at the close of Adeste Fidelis, a piece crossing tonal boundaries and moving towards realms of atonality.

These two extant organ solos were both conceived within the strong influence of tonality: the Variations is concerned with voice-leading extensions with some optional "boy's fooling"; Adeste Fidelis is a more sober expression of the same thing. Both owe much to the organists's art of improvisation. Apart from the virtuosic pedal solo of the former, Ives' pedal writing within his contemporary anthems appears to have been quite unimaginative; a situation all the more obvious when one considers his liking for sliding chromaticisms over pedal notes which rarely strayed from the primary degrees of the scale. Perhaps like many young improvisors he often fell into the trap of keeping "one foot on the swell pedal and the other in the grave." Certainly his interest lay more with the possibilities of virtuosic keyboard playing and abstruse modulation.

Aside from the strongly romantic influences in his keyboard writing at this time, it is necessary to recall that Ives had a great love for Bach. Accordingly his early recital performances of the organ Toccata in F (BWV 540) and Toccata in d-minor (BWV 538), and especially the central section of the Toccata, Adagio & Fugue (BWV 564) must have acquainted him with obscurer types of chromaticism from the Baroque era. These together with styles from Bach's 48 would have offered further paths for experimentation. But purely from the viewpoint of texturing, nineteenth-century popular harmonies still held sway. Many such types are clearly evident in piano parts to the violin-sonata movements, some of which are derived from recycled organ scores: a good example occurs in the accompaniment to the Third Violin Sonata where there is a great deal of overweighted octave doubling.

So far the discussion has generally been confined to Ives' extensions of traditional textbook harmonies. But the Memos record that both he and his father considered the possibilities of building up tertial chordings through processes of trial and error at the keyboard. Such experiments were thought out very early on:-

> Father used to let me, half in fun and half seriously, make chords up of several 3rds, major and minor, going up on top of themselves. I remember one especially which I sometimes would play in church, even in short interludes between verses in a hymn.. . . and after an interlude, ((in)) which probably one of these ((chords with)) four or five 3rds was used, Sally smiled and nudged Harmony.. . . 41

John Kirkpatrick dates this between 1897 and May 1889 when the Ives family lived at 16 Stevens Street, Danbury. The later reference to Harmony, his future wife, shows that the composer was still trying out such ideas even when he was a New York organist in 1902, the year of his final resignation. The interludes above seem to have been a necessary part of service accompaniment at this time. The question arises as to whether Ives, either as composer or improviser, consciously thought of mixing two or more keys to form polytonal chords, or was just interested in piling third-intervals vertically. The previously cited interlude on Bethany is a case in point: chords used could either be constituted of a run of mixed thirds, or of two superimposed dominant sevenths. Such a question might appear academic but for the fact that Ives' early experiments involved both the piling of thirds in dyads with no particular key connotations, and also the polytonal mixing of two or more triads with specific key connections: Bethany represents the first category, while the choral setting of Psalm 67 (1894?) is in the second. Adeste Fidelis has already been mentioned as based on mixed triads; but the composer also records a lost work, the Prelude, (Offertory) and Postlude (1897?) later incorporated into Thanksgiving (1904) for orchestra, which employed such procedures as:-

> . . . a C minor chord with a D minor chord over it, together, and later major and minor chords together, a tone apart. 42

Identical chords also occur in the Robert Browning Overture (1908-12)[43] part of which was to evolve from some piano studies, and the songs Paracelsus (1921, also derived from the above) and Requiem (1911). Commenting at Yale on Psalm 67 which mixes g-minor and C-major tonalities, Ives and his friend Dr. Griggs considered that such sonorities possessed a kind of"Puritan strength". [44] These associative qualities are only apparent when the chords are placed wide apart so that one can fully appreciate their resulting bitonality. This kind of arrangement is in clear contrast with the composer's other experiments with superimposed dyads. He makes this distinction in his Memos:-

> For instance, ((I remember)) going over some of these chords with Father—one, which I played for fun etc. (often ever since), was C♮-E♮-G♯-B♮-D♮-F♯-B♭-D♮—and then Father saying, "Now if you will play this B natural ((as)) B♭, and stop at F♯ ((for the)) top, there won't be any half-tone dissonance." But I remember we both liked the one with B natural better, ((and some of)) the various chords which could be made of: 3rds all and over, then 3rds and 2nds, then 3rds and 4ths, then 3rds and 4ths and 5ths, etc. . . .
>
> This boy's way—of feeling, if you can have two 3rds, major or minor, in a chord, why can't you have another one or two on top of it,etc.— ((is)) as natural to a boy as thinking, ... —it's an obvious and natural way of having a little fun!. . .45

Example 14 contains various permutations taken from Ives' suggestions. Only a small number have been given; for, such placements seem endless in their variations: in example group A the chord could be considered as two 4-note augmented triads, while in example group B it will also produce a 6-note whole-tone chord in thirds.

It may be that many such chord arrangements possessed a wide variety of associative connotations for the composer. John Kirkpatrick has picked out an unidentified fragment of two chords in piled intervals appended with the phrase "Sun Rise Chord over East Rock last time up in 1896"[46]; this corresponds closely with the

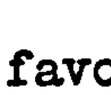
"Sunrise Cadenza" which concludes the second movement of the Piano Trio. In bars 204-6 there is a huge arpeggiated run made from an interval mixture which lies quite comfortably under the fingers. Similar constructions occur increasingly after 1905 and appear frequently in many of the later piano solos. Even the curiously bell-like "cloud sounds" appearing in Ives' quite traditional glee The Boys in Blue (1897?) are placed in its accompaniment for some kind of extra-musical reason (ex.15)[47]. As with the interval groupings mentioned above these quaint chords lie neatly under the fingers; yet, while they are "handshaped", they certainly do not relate to chords used for piano-drumming. Around this transitional period Ives became obsessed with crafting works which had some kind of consistent intervallic use. The accompaniment to The Cage (1906) is probably the most extreme example; though other songs of a more traditional nature like Children's Hour (1901), Harpalus (1902), Walking (1902), Remembrance (1906) and Those Evening Bells (1907) seem to hint at the "cloud sounds" of a few years earlier.

Chordal Counterpoint, Wedges & New Textures.

Not until the experimental psalm settings written during the period 1894-1900 does Ives begin to write a body of material which can truly be called innovative. Even at the end of the century he seemed quite happy to continue writing in his "old" style, though he was fortunate enough to gain performances of his psalms with the help of Dr. Griggs and his choir at the Central Presbyterian Church. Besides the more tonal essays in counterpoint that he had to produce for Professor Parker he was writing the "first serious pieces quite away from the German rule book"[48]: these were to include the Fugal Song For Harvest Season, Fugue on Shining Shore

of 1896 and the previously mentioned Prelude, (Offertory) and Postlude of the following year. Frequently in these works there are areas when Ives not only writes in dissonant linear counterpoint but also enlists new technical procedures treating chords as thick groupings of textures which converge, diverge or interpenetrate. His experimental approach to organ writing was certainly not reflected in that for the piano. In contrast, the Allegretto (Invention) in D (1896) is most traditional in style. Carefully crafted in three-part free counterpoint like a class exercise, it is a bridge between Bach's A-minor Invention and the more chordal types of Mendelssohn's fugues; though within there are syncopated entries possibly relating to ragtime "shuffle-dances" of the 1890's.[49] All these contemporary examples demonstrate the extreme ends of Ives' creative continuum.

Nevertheless, even in his moderately romantic style, either by chance or design a few experimental organizations of texture begin to appear. Much later he illustrated this with a little sketch to show how he visualized the movement of blocks and wedges of musical sound (ex.16).[50] Other than in the incomplete sketches it is difficult to trace such elements in his earlier style. However, a few trends do appear. Probably the most obvious example exists in types of contrary-motion string writing from the First String Quartet (1896): a work also derived from abandoned organ solos. Its fourth movement shows common quartet textures in diverging sixth intervals between the upper and lower parts: here, within the space of a bar-and-a-half there is a gradual widening from the central $\frac{G}{B}$ sixth to a range of three octaves (ex.17). Likewise, The Celestial Country contains a similar feature, this time applied to the vocal writing in No.3 "Seek the things before us" (ex.18): here the harmonies are placed as a palindrome.

Both examples use a favoured marching figure  . When such arrangements are applied to works which are less bound by traditional chordal progressions, the interplay of textural variations sounds much more apparent. R.P. Morgan points out:-

> . . . the wedge techniques found, for example, in the closing section of Tone Roads No.3 and in Psalm 24, where the musical idea essentially consists of a registral expansion in both directions from a central axis, followed by a return through contraction to the same point (the motion being circular). There are even pieces whose entire shape seems to be determined by registral considerations. 51

This is just one means of application. In Psalm 100, another experimental setting, such shapes are treated in parallel or oblique motion where one static line or chord is approached and quitted via bitonal means: here blocks of sound meet, collide and separate oncemore. In simplified form this can also be seen in bar 11 of Psalm 150 where bass and tenor lines converge (ex.19).[52] Most extensive kinds of chordal collision occur in the reconstructed versions of Psalm 25 (bars 150-1) and Psalm 90 (bars 60-5). As Ives used the keyboard to sketch out most of his ideas, it is reasonable to assume that these settings prior to scoring underwent this means of testing. In this way, through processes of trial and error he could later formulate styles of piano writing which absorbed some of these intellectually ordered methods.

d) NEW TREATMENTS OF SCALES & ARPEGGIOS

The Chromatic Scale.

In common with most young keyboard players Ives would have used this as a familiar device for limbering up the fingers. But with the onset of boredom he began to use this scale as a basis for some rather unusual virtuosic experiments in octave displacement and contrary motion. Possibly spurred on by the discovery of similar chromatic leaps while playing the pedal part of Bach's

Toccata in F (bars 344-9) or the prelude in Eb from the second book of the 48, he later described his means of investigation:-

> In some of the piano pieces, The Fourth of July, The Masses (score), some of the take-offs, etc., ((there)) are wide jumps in the counterpoint and lines. The ears got gradually used to these, as they, like the piano drumming, started in fun—in this case by playing the chromatic scale in different octaves, and seeing how fast you could do it—for example, starting say on low C, then C# middle, D top or D# low, etc., and then back again in different ways—as: ((ex.20)). And gradually, as the ears got used to the intervals, I found that I was beginning to use them more and more seriously, that these wide-interval lines could make musical sense . . . 53

While this particular example does not appear in any of his piano writing, it clearly demonstrates Ives' extreme virtuosity at the keyboard. Such chromatic runs are employed with increasing regularity after 1905 as in piano study #18 and the obbligato cadenza to Over the Pavements (c.1906): this also leads to similar wide interval writing in the Concord Sonata movement Emerson, the Varied Air & Variations (1923?), and the Largo from the Quarter-tone Pieces for Two Pianos (1923-4). John Kirkpatrick recalls that:-

> Ives told George Roberts that his father had him do chromatic scales with each interval a minor 9th — "If you must play a chromatic scale, play it like a man." 54

Mr. Roberts, one of Ives' later music copyists remembered that the composer still amused himself with such scales even in the 1930's.

> He had a piano in the studio on 74th Street and he'd play, sometimes for a couple of hours, if he got started on something. He played many things—parts of the Concord and those chromatic piano studies that he wrote. He'd go over that piano with tremendous speed. It was the most peculiar sensation when you heard these things, because it wasn't a chromatic scale really. It sounded like something else. They're chromatic studies, but the notes are spread an octave apart—C and then C sharp, a ninth up, you know. 55

Applied with displaced accentuation in Over the Pavements Ives said that:-

> The cadenza is principally a "little practice" that I did with Father, of playing the nice chromatic scale not in one octave but in all octaves—that is, 7ths, 9ths, etc.—good practice for the fingers and ears, especially as each time (up and down) was counted differently: 8-7-6-4-5-3-2-3-4-5- etc., and accented sometimes on the beginnings of the different phrases. 56

Certainly by 1900 he had developed quite a number of new melodic and harmonic possibilities for this scale. Again it is necessary to use rewritten scores for musical examples, especially as most of his experiments seem to have been tried out at the organ console. The final movement of the Third Violin Sonata, much of whose piano accompaniment is derived from a lost organ prelude of 1901 presents the chromatic in new variants (ex.21). Aside from normal forms ascending and descending in octaves, now and again notes are thrown up a major seventh. The same movement also transforms similar material into sequential shape with the addition of a tritone between each falling chromatic step (ex.22): certainly this bears similarity with the Bach toccata pedalling cited above and with various sections used in Ives' own solo Waltz Rondo of a decade later. They are also applied harmonically as chords in the finale to the First Violin Sonata: towards its conclusion they appear in what the composer termed as cross-hand "swipes" over a C pedal in the bass (ex.23). This is a sort of chromatically decorated dominant preparation to the final tune in F-major with the "swipes" used as a banal anticipation. With no parallels in the art music of the period, this type of elated expression is much more related to the informal performances that Ives was used to hearing at revival meetings. It recurs in such works as the closing bars of Halloween (1906) and in Arguments from the Second String Quartet (1907-13), where in the context of "serious" atonal composition original connections with pianistic "boy's fooling" seem rather obscured.

Ives must have possessed enormous physical energy and mental agility to execute his new chromatic effects on the piano. Indeed an analogy can be made here between his youthful passion for baseball playing and the exhausting skills required to throw hands criss-crossing over the keys. Many of these effects were again

achieved in trial-and-error fashion.adding up to a kind of problem-solving tried out at the keyboard. These ideas are most original, and yet one wonders whether Ives had a knowledge of nineteenth-century virtuoso solos which were based upon similar philosophies of study experimentation. Certainly he must have turned to Mendelssohn and Schumann many times, but neither offered a systematic body of material dedicated to the perfection of various keyboard techniques. While Brahms in his 1893 Klavierübungen made some approach in the form of difficult exercises, it is necessary to look to Chopin for truly inspired collections of studies. However, there is no direct evidence to show that Ives knew these, though their discovery would most certainly have fired his creative imagination. In the 1930's he could only pay Chopin the grudging back-handed compliment:-

> . . . pretty soft, but you don't mind it in him so much, because one just naturally thinks of him with a skirt on, but one which he made himself. 57

The topic of chromatic voice-leading has partially been discussed with reference to Ives' organ variations and song At Parting, but his "boy's fooling" with this scale formation promoted its use in more informal musical contexts. The Flag Song (1898),a trifle "probably written for a Yale alumni dinner," [58]offers a Janus-like clue to the way that Ives bridged old and new ways of treating chromaticism. The piece is a parody, blatantly "over the top" containing delayed or even abandoned chromatic resolutions, harmonic clashes and added notes. It has the air of a last-minute improvised march for performance with gay abandon at a college hop. More detailed scrutiny offers a key to Ives' gradual stylistic transition. Occasionally chromatic semitones in it are subjected to octave displacements or allowed to rise or fall with little or no regard for the harmonic clashes which result; alternatively rising sevenths are delayed or just left to hang fire on tonic

downbeats (ex.24). This is probably the earliest notated example incorporating Ives' interest in the mistakes of performance and improvisation. Again, in stark contrast for this period, a sedate use of a similar dissonant progression can be seen in Harvest Home Chorale No2 (1901?) present in tenor lines of the opening and closing organ solos placed over C♯ pedals. Again both works are at opposing poles of Ives' composing spectrum: one secular, the other sacred; yet both were written during the period of transition. The chromatic passing-note dissonances used are strongly related: the march records performance errors; the chorale, carefully graded semitone voice-leading.

The emerging importance of wedge-shaped structures in Ives' writing has already been mentioned, but there is little doubt that these became fused with some of his chromatic treatments. His experiences in the field of band and theatre music would have exposed him to types of improvised "breaks", incipits or bridge passages where contrary-motion chromatic runs were used. Even in virtuosic piano writing of Chopin and others such wedges appear: the closing bars to the Ballade in g-minor Op23 offer an excellent example of a converging shape which is formalized into notation. The manuscript examples give a few variants of this common feature (ex.25).

Armed with historical precedents from popular and serious musical cultures, Ives borrows and distorts these shapes transforming them eventually into new compositional devices. Used traditionally it can be heard between the G and D-major sections of his march Here's to Good Old Yale (1892-?7) which he recorded in 1943 (ex.26). He gives a different version in his 1938 Improvisation on Themes from the Second Symphony. Here a wedge opens out from a central semitone point prior to the final statement of

the main theme (ex.27). Both these examples show that during impromptu playing, only a semitone finger-shift by chance or design can displace the note relationships in quite common contrary-motion runs. This emphasizes the essential ambiguity between Ives' notated and live performance approaches. The only exception to such latitude in his private recordings is a near-perfect account of the Concord Sonata The Alcotts which contrasts strongly with numerous and fanciful improvisations on sections from the Emerson Transcriptions.

The reassessment and rejuvenation of the chromatic, with other traditional harmonic and melodic materials which is to be shown later, underlines Ives' empirical methods of pouring old wine into new bottles and then sampling the vintage. Often the resulting mixes of "old" and "new" ways of style sound curiously hybrid: for the unattuned listener such tonal-atonal blends are difficult to grasp.

The Mixing of Diatonic, Modal & Other Scale Forms.

Elements of game-playing extended to all of Ives' experiments with his materials. There is plenty of evidence in the mature scores to suggest that he enjoyed youthful essays in mixing together a number of different scales whether diatonic, chromatic, pentatonic or whole-tone. However, other than in a few passing references, his own writings contain little specific information on the subject. There is one occasion in the Memos though, mentioning a type of half-serious prank called "Holding your own."

> One man plays the chromatic scale and another a diatonic ((scale)) in different time etc. . . . But the last time I found it, it seemed quite (or partially) musical, and worth playing—and ((I)) put it, as a slow bit, into a fast Scherzo (see the Set of Three Short Pieces for string quartet and basso and piano . . .). 59

Following on from the kinds of scale organizations used in From The Steeples (1901?) this scherzo of 1903 is a further example of mixtures later to appear in Halloween and the Second String Quartet:

similar arrangements can also be seen in the third and fifth movements of the First Piano Sonata (1901-9) and in studies #8 and #18.

Once more the question of handshapes arises. There is no doubt that Ives regarded all his scale experiments in the colloquial sense of a "work-out". Using these as his own compendium of exercises presumably for amusement, he tried out runs in fourths, fifths, sevenths and so on. His later solos are liberally sprinkled with such effects which go far beyond the kinds of study figurations used by Scriabin and Debussy. Extending these parallel types of runs to embrace pentatonic ("whitenote" or "blacknote") and whole-tone scale shapes, then mixing them between hands, meant that it became quite easy for the composer to depart completely from the realms of tonal harmony. Violin sonata movements written around 1900 present many examples of this modal mixing: their accompaniments show an astonishingly wide range of textural treatments which clearly anticipate those in the solo writing. The second and third movements of the First Violin Sonata being in Ives' "new" style take traditional scale and arpeggio units as a departure point and subject them to rather unusual treatments. Often piano figurations are influenced by shapes in the violin line: this is especially noticeable in exchanges using "Viennese" thirds and sixths or folky fourths and fifths. When these features are carried through to the works for piano solo their earlier connections with violin figurations are lost due to the greater textural density of the keyboard writing. This, allied with Ives' constant reworking of his musical materials, makes unusual demands on attempts at analysis. The researcher not only has to record the gradual developments from youthful exercises towards mature compositions, but frequently is required to follow the process in reverse so that discontinuities in style may be accounted for.

e) MUSICAL FIGURES OF SPEECH

Ives' style took shape over many years and only by degrees. His early choral and instrumental works were indebted to rhythmic and melodic inflections heard in the cultured and vernacular musics of his youth. Many of these "found objects" having strong nostalgic associations with the composer's boyhood, were used with increasing frequency in the later piano and orchestral works as misty memories of a bygone age. Early settings of songs and anthems together with marches written for his father's band contain a broad spectrum of creative approach within their particular genres. Such precocity as illustrated in works like the Variations on America and early marches often shows Ives' over-enthusiasm for particular "turns of phrase" or exaggerated stylistic traits which sometimes seem out of all proportion to their musical worth. While such boldness is common as pastiche, the question must be asked whether Ives later could have broken free from these nineteenth-century hall-marks, even when formulating a unique language of his own. Instead, borrowed Romantic melodic and rhythmic inflections became more and more atomized as he pushed forward into new techniques of organ-ization towards the turn of the century. Often these minute figures of speech have little to do with the direct quotation of melodies or rhythms associated with specific pieces of music, for they exist in profusion within the mature works as well. Thus the problem is one of assessing how Ives actually constructed his musical ideas inbetween the obviously quoted sources employed. What follows is an attempt to explain the gradual evolution of these bits-and-pieces, together with the way that they contributed to the composer's emerging style. Already much has been written on the importance and manner of quotation in Ives' mature scores, [60] so only occasional

reference will be made to those "found objects" which have been identified as containing specific extra-musical associations.

Before examining the contributions made by certain affected intervals and melodic shapes to Ives' style, it must be emphasized that the organ was his first love. Its repertory fired his creative interest: even a specific interest in Bach and his Romantic follower Mendelssohn. Ives, unlike many American composers of his generation maintained a constant awareness for the intricacies and minutiae of contrapuntal movement. In fact he revelled in them. The extensive chromatic decorations used in the Variations on America clearly bear this out. Of course such embellishments were common in much late Romantic music, but the gradual dislocation of small motivic cells away from their homophonic context, and their contribution towards the later construction of new melodic types proved to be an essentially Ivesian phenomenon.

Unlike the periods of Classicism and Romanticism for which Ives had ambivalent regard in later life, he always held Bach's music in high esteem. A strong reason for this could lie in his fascination for the composer's contrapuntal expertise. Contrasting with the prevailing melodic types that Ives had grown up with, Bach rarely possesses long vocal melodies which are essentially singable in the nineteenth-century sense. His musical lines are generally formed by the coming together of motivic cells often involving some type of sequential similarity. Some are based on violin cross-string patterns, others on keyboard finger-patterns. Only fairly recently have these motivic bits-and-pieces been identified specifically in their own right as the very grist of Baroque melody writing. Peter Williams and theorists of the nineteenth century and earlier call these devices "Figurenlehre." An exact analogy with the construction of Ives' mature compositions

obviously cannot be made; but certainly the way that he arrived at motivically structured melodies does have an uncanny similarity with Baroque methods of musical process. Williams writes:-

> These ((Figurenlehre)) signify those motifs, cells, catch-phrases, melodic intervals, short groups of notes and other patterns from which a piece of music is made; . . .

He continues:-

> The more one is alerted to the idea of Figurenlehre, the more the figurae can be seen as powerful undercurrents below the stream of music right into the 19th century and in some cases beyond. This is so despite the fact that in principle a figura is different from the kind of motif involved in the'motivic composition' of a Beethoven or a Wagner, where motifs were newly invented, with distinct and individual melodic character. Only analogously can the motivic development in the Fifth Symphony or Götterdämmerung be compared with the figural melody and counterpoint in Orfeo and the Orgelbüchlein, where the composers' skills were marshalled towards creating new music from traditional figures. 61

The distinction between Ives' borrowed quotations and the cobbling together of his own thematic bits-and-pieces can hardly be overemphasized. Quotations are but a small part of Ives' constructive thought; for, it is the bits-and-pieces formed by the composer's extensive keyboard improvising which basically hold the whole of his musical structures together.

Williams goes on to name various figures which come essentially out of their particular instrumental technique, such as Samuel Scheidt's figura violistica (=$B^{C}B_{A}$ in semiquavers):-

> . . . that is, it was associated with one kind of string playing and with one kind of phrasing or articulation, telling us a lot about both string playing and keyboard articulation. 62

What follows is most important:-

> The point is, to a player alerted to this simple motif it suddenly becomes apparent that lines of semiquavers are not merely lines of semiquavers but series of motifs, patterns, cells, figurae that the player should show. 62

Of course Ives did not consciously employ these simple motivic devices: they were formed habitually from childhood via studies and exercises, as can be seen for example in Czerny's "Art of

Finger Dexterity" and similar primers of the nineteenth-century period. But these, added to Bachian figurations as well as Ives' own invented chord, scale and arpeggio exercises, combine to form a unique musical continuity. It is during the transitional period around 1900 that there is a gradual change from the use of long Romantic lines towards a fragmentary motivic kind of writing, frequently interspersed with thematic quotations. Extensive use of chromatic voice-leading within earlier pastiche works contributed to this melodic dislocation in the later tonal writing of the period; though it seems unlikely that these alone would have offered the composer an acceptable model on which to base his motivic ideas. It is doubtful that Ives would have had access to the more esoteric of Bach's works such as the Art of Fugue of the Musical Offering unless he had studied them as an undergraduate. Again the disjunct leaps, fast harmonic rhythm and cellular constructions of the 48 and the Inventions must have acted as inspiring pointers for new organizations.

Ives may have been presented with another possibility. While the Memos make no mention of Liszt's music, he could have played or at least heard the Fantasia and Fugue on BACH at an organ recital in New York City; alternatively a copy of Schumann's Six Fugues on the name of BACH may have been in his possession. Admittedly, Liszt would have represented for Ives at least the epitome of all that he generalized as mindless pyrotechnics, Romantic bombast and crowd-pulling pianism: features lampooned later in the Memos when he railed against the inflated reputations of nineteenth-century trained piano virtuosi like Josef Hofmann and Ossip Gabrilowitsch. Nevertheless, Ives who thirty years later in the Memos seems to enjoy putting the researcher off the scent, may well have been totally consumed by many pieces

from the Romantic repertory when he heard them as a youth. As an up-and-coming organist his imagination most certainly would have been fired by the astonishing originality of Liszt's organ work: after all, he loved showing off his own technical prowess in his 1890 recital, and by that time was well capable of performing show pieces which were quite difficult for the period. Ives, perhaps rather blindly, does not seem to have seen any link between his own virtuosic ambitions and those of his contemporaries in American concerthalls. The Liszt BACH demands a very secure and carefully handled performance to make it musically convincing: certainly this work would have been a very logical addition to Ives' repertory, especially as it embodied the essence of combined eighteenth and nineteenth-century styles. Liszt's BACH-motive, though based on chromatic musical steps, has strong connections with the nota cambiata in Baroque Figurenlehre. Some acquaintance with this organ solo may also explain why Ives consciously used BACH in varying permutations throughout most of the Three Page Sonata (1905) and in some of the later piano works. A few words are necessary to explain how Liszt's piece might have influenced the young organist-composer. In the Fantasia the four-note cell is treated in all four serial permutations, both melodically in runs and also underpinned per letter by roving chromatic harmonies. Frequently the cell is subjected to all manner of arpeggios and mixed scalic runs using upper dominant, diminished and dominant sevenths involving a great deal of chromatic alteration. Often the runs represent a mixture of diatonic and chromatic elements intermingling in sequential patterns: these have more than an occasional resemblance to similar features within Ives' later studies and piano sonatas. Surprisingly though, the difficulty of the Liszt is more apparent than real, and if Ives had a copy he would

have easily grasped its technical difficulties which are far outweighed by those in Bach's organ works.

Ives' increasing use of three or four-note cambiata cells cannot be pinned down to one specific type of influence. While figurenlehre shapes in Bach may have made a strong contribution to Ives' emerging piano style, additional sources must also be taken into account. Music of the late Romantic period was undergoing an increase in chromatic saturation anyway, through the use of wayward inner countermelodies and in the case of Wagner, very fast harmonic rhythm. Ives' own interest lay more with the symphonic styles of Dvorak and Brahms: looking at the Fourth Symphony of the latter for instance, one notes a preference for figurations which dovetail together from rotated three to four-note cells. But the main influence of cellular chromaticism on Ives' motivic constructions came primarily from the ways that these devices were used in popular music, or those popular-type compositions which attempted to break down the barrier between serious European art music and the parochialism of American or indeed English salon styles. Already it has been shown that Ives' early works succeeded more or less in bridging this divide, as did similar composers from academic musical backgrounds like Sousa, Reginald De Koven and Victor Herbert who also synthesized popular and classical elements. In much of Ives' pre-1900 tonal writing we can already see inclusions of chromatic "asides" from such mixed backgrounds. Coupling the Five Street Songs with Ives' enthusiastic activities as a bar-room pianist at Yale where he played in a variety of "pop song" styles involving ragtime elements, we can now see the very wide composing and improvising traditions that he was able to draw upon. The jagged vitality of Hello My Baby (1899) was turned by him in his later recordings into a chromatic tour de force with every improvisatory "aside" thrown in. The addition of these to essentially diatonic melodies continues to

this day. Accordingly Ives, who developed a music which recognized no cultural boundaries, drew upon the essentially figurenlehre three to four-note riff ($^{C}B_{B}b_{A}$ -among many) to provide the mainstay of much of his most experimental style.

Contrasting with such extremes as expressed in the later Studies for piano, earlier writing as it appears in tonal sections of the song and violin sonata accompaniments shows only a gradual move away from the longer types of melodic writing. Ives' movement from "old" to "new" style involves the progressive debasement of such Romantic lines through the interpolation of these motivic cells. It is as though these features float to the surface of the composer's creative consciousness, coming together to form new kinds of linear construction.

"Affection" in melodies and smaller motives.

Ives' 114 Songs demonstrate a vast assimilation of musical styles and performance traditions. Often they include most successful essays in pastiche, as for example in songs written in lieder, chanson, march, or "oirish" genres. The fact that in many of his more experimental vocal pieces borrowed tonal quotations are seen to rub shoulders with non-tonal continuities was of no aesthetic concern to him, however incongruous the effect. In a similar context, pentatonic motives also appear within some of the most atonal sections of the piano studies and sonatas.

Following on from his extensive use of pentatonic shapes in accompaniments to such early songs as To Edith (1892), World's Wanderers (1895), My Native Land (1895), An Old Flame (1896), From "Amphion" (1896) and a little later in There is a Land (1902) where they are employed traditionally for emotional effect, this kind of modal inflection can just as easily be traced to a great many head-motives (i.e. first musical phrase) from hymns and folksongs

of the nineteenth-century period. Ives' own variations and treatments of this particular scalic patterning will be dealt with later on referring to sections from the First Piano Sonata.

His preference for pentatonic shapes was also complemented by a choice of certain recurring rhythmic "habits": these too stem from the realms of popular, classical and band music. By far the best known is a use of the "Fate" motive from Beethoven's Fifth Symphony occurring within both the Three Page Sonata and Concord Sonata. "Fate" first appears in the song accompaniment to Dreams (1897) though only as a fleeting rhythmic reference. Another favoured unit is the upbeat to the bugle call "Taps" . This figure is employed in a host of marching songs, alongside Ives' best-loved Columbia where the rhythm  is presented as rising or falling in perfect fourths or fifths. Some commentators have associated it with nostalgic memories of Ives' father and the Civil War, though there is no direct evidence for this in his own writings. While "Taps" is clearly traceable to bugling motives, it can also be seen in the third movement of Tchaikovsky's Pathetic Symphony and in other orchestral fanfares from the nineteenth century. Connections here with a kind of heroic or warlike spirit are obvious. When this commonplace inflection appears later in the Three Page Sonata it is transformed through many rhythmic and intervallic modifications into an Ivesian figurenlehre: it becomes an important creative and structural device.

A much more elusive motive which occurs increasingly within keyboard writing from the turn of the century, and yet cannot be traced definitively to any quoted origin unlike those above, is the intervallic fall of a minor third and a semitone. Possibly there could be connections here with Cesar Franck's submissive introductory figure ($^{C\sharp}{}_{G\sharp}^{B\sharp A}$) to the Variations Symphoniques

for piano and orchestra of 1885. Ives was acquainted with Franck's music and may well have been impressed by the improvisatory and rhapsodic fervour of this work. Again lack of direct evidence makes such a connection tenuous, especially as Ives' own three-note pentatonically-based motive appears in many guises throughout the First Piano Sonata where it is subjected to a multiplicity of rhythmic and intervallic treatments: here are just a few variants:-

Minor 3rd+½tone; minor 3rd+tone; major 3rd+½tone; major 3rd+tone. As it commonly occurs at cadences or points of musical pathos, this cell could appropriately be called a "sigh-motive." Ives' sonata treats it as a kind of motto for the whole work, though frequently it is transformed into four-note shape, namely: ½ tone+minor 3rd fall followed by a ½ tone rise (i.e. the notes $^{C}{}_{B}{}_{G\sharp}{}^{A}$). Alternately this could also relate to the BACH cambiata motive previously mentioned.

Ives' assimilation and creative redirection of borrowed quotations and assorted bits of musical bric-a-brac took him some time to structure. But his fascination with "ragging" and other Afro-American techniques as a popular pianist soon enabled him to add other types of figurenlehre to his expanding vocabulary. Thus for example, if we take Henry J. Sayer's 1891 popular marching song Ta-ra-ra-Boom-de-ay as a typical vaudeville staple, and safely assume that prior to its inclusion in the Piano Trio Ives enjoyed thumping it out for his undergraduate friends, it is possible to identify minute motivic fragments which within the realms of traditional musical analysis would hardly warrant consideration. Sayer's song together with Bill Bailey (1902) employ commonplace chromatic auxiliaries (i.e. B A♯ B) both as an intrinsic part of their melodic construction and for emotional effect. This inflected figure features extensively in Ives' music after 1900, used

both as a traditional auxiliary and as a kind of "off-the-cuff" afterthought. In early tonal works it appears unadorned or in "Viennese" thirds and sixths; later, piano and orchestral pieces harmonize it dissonantly.

With Ives' experimental searchings into chromaticism and atonality, the retention of now disembodied tonal fragments indicates a strong wish to maintain links with his Romantically associative musical past. A good example of this is the use of a kind of "yearning motive" (i.e. $^{D}C\sharp C\sharp_{B}$) in the rhythm  . The composer had a preference for this figure within some of his most chromatic writing and frequently presents it in many rhythmic and intervallic transformations: good examples appear in the Largo (1901) and slow movement of the Three Page Sonata. This, together with the other figurenlehren identified above, shows that many of these motivic shapes possessed some kind of personal associative link for Ives. But their abstruse origins and fleeting presentations throughout his music prevent them from being called leitmotifs in the Wagnerian sense.

Peter Williams has attributed the formation of Baroque figurenlehre to melodic shapes which evolve through a particular instrumental technique. Likewise, Ives' figurations can be explained by his own digital relation to the keyboard. The sentimental connotations of the pentatonic scale have already been mentioned, but there could be additional reasons why the composer chose this, not least for its ease of playing under the five fingers. The mature piano pieces often show preferences for both black and white versions of this mode. Probably the earliest example of its use is as a white-note ostinato pattern appearing in bars 170-3 in the accompaniment to the Third Violin Sonata first movement: here and further on, there

is no doubt that Ives alludes to the striking of a clock: he quotes part of Westminster Chimes. Fuller quotations appear in the slow movement of the Three Page Sonata and towards the close of the Second String Quartet. While these two examples are long enough to be recognized as relatively complete representations, the three bars from the violin sonata are but transitory motivic appearances, dictated by the convenient lie of the hand at that moment (ex.28).

To tie in all the above motivic preferences with the hundreds of melodic quotations used by Ives is beyond the scope of this discussion. But it is important to stress the contribution of handshape procedures in determining his choice of some of these smaller motives.

Sequential Transitions.

The use of sequential material is a common enough occurence in nineteenth-century piano writing and an important feature in any technical studies of the period. A combination of three to four-note figurenlehre groupings strung together in ascending or descending motion will add up to repeating patterns of sequential type. But whereas "good taste" in the practice of composition demands that a sequence be changed during or after its third repetition, Ives in his transition towards more dissonant kinds of writing breaks this rule and the dividing line between sequential progression and actual ostinato effect often becomes blurred. Alternatively upon each repetition intervallic and/or rhythmic variations are brought into play. An early accompaniment to the third movement of the First Violin Sonata shows this rather well. Based on the hymntune-song Watchman Tell Us of the Night (1901?) the section from bars 66-71 converges in both hands via a wedge of study-type patterns (ex.29). A little later at bars 75-9 this procedure is reversed: the left hand in broken thirds and the

right playing variants of the hymntune. Similar wedged sequencing appears in the first movement of the Second String Quartet: here the chromatic figures have much in common with those used in Chopin's Berceuse or in many other nineteenth-century works for that matter (ex.30). The mixing of traditional and Ivesian sequential devices increases from the violin sonatas onwards. Eventually both elements interpenetrate to such an extent that their resulting chromatic and often attendant rhythmic complexity can only be termed as avant-garde for the period.

In changing from "old" to "new" styles Ives' increasing obsession with his personalized kinds of digital activity resulted in innovative improvised chords and finger patterns far removed from nineteenth-century models. Additionally it has been shown that spontaneous "boy's fooling" which had resulted in drumming, added and "wrong-note" chords as represented in the marches, Celestial Country and Flag Song gradually became assimilated into his musical language as serious considerations. Thus drawing upon a polyglot of diverse styles and performing practices, together with his own keyboard discoveries, Ives formulated works which were to move in and out of freely improvised or borrowed materials. His Three Page Sonata was to be his first mature expression of such linked ideas in the solo piano writing: here a carefully balanced hybrid style evolves from the mixing of subtly quotational material and improvised digital thoughts. Around 1900 however, Ives was still experimenting towards the achievement of such a balance.

f) NEW RESOURCES FROM SECONDARY MUSICAL MATERIALS.

Reassessments of the Traditional Accompaniment.

To anyone who has improvised a piano accompaniment, the left-hand vamp is by far the simplest device to use. It has no other musical task than to set up the rhythm and underpin the melody with

suitable primary triads. Time and again Victorian songs and instrumental solos feature either the common Alberti bass or its partner the "um-cha-cha-(cha)" chordal strum: Ives' song The Side Show (1921) with its offset "oirish" waltz is a good example. Looking back to the eighteenth century, where popular and folk styles were often interchangeable, we can see similar strum procedures in Haydn's arrangements of Burns' Scottish folksongs for voice and piano. Ives was directly in touch with such improvised accompaniments: as a boy he had enjoyed attending Danbury barn dances and Saturday-night hops. Such impromptu styles are often recalled in parts of the violin sonatas and piano sonatas. All make extensive play with frenetic vamping; on other occasions the simple triadic progressions used are slowed down to become dreamy oscillations between two chordal areas. While imitating these procedures in his own music, Ives goes one further and tries to copy mistakes in performance practice. In the Barn, the second movement of the Second Violin Sonata (1902) is an obvious romp in barn-dance style. In one section (p.15,b.92,sys.3) the composer intentionally puts the piano accompaniment's progressions of I, IV and V out of synchronization with the solo violin part. He recognizes that this type of mismatch is a common occurence when barn dances were played at high speed, with the pianist inevitably lagging behind the fiddle player until his vamping caught up once more with the melody.[64] Conversely, it was quite frequent for a soloist to add an extra bar; then again put the accompaniment out of synchronization.

Folk musicians both now and in Ives' youth rarely played from printed music. Inevitably the spectre of memory-lapse and stage-fright loomed large before any performance. Ives knew about such embarrassments during concerts. Accordingly the acquisition

of a sharp-witted accompanist could easily accomodate this problem with the careful addition of an ongoing vamp ("Come in when you're ready!") before the entry of a nervous soloist; or, if his memory was failing, another vamp ("I'm right behind you!") to fill the pregnant silence before he took up once more with the words or melody. Within the realm of art music Ives knew that such procedures were frowned upon; in folk and popular music, very common.

His attempt from around 1900 onwards to actually notate informal methods of folk and popular performances is unique for the period. The all-pervasive habit of "ragging" a melody and its piano accompaniment can often and unwittingly cause the traditional musical roles of master and servant to be exchanged. Many songs and areas of the violin sonata accompaniments are homophonic in character; others are contrapuntally intricate. While the simple texturing of the former makes it fairly easy to assess the harmonic implications of an accompaniment, the latter can often upgrade it into something musically interesting in its own right. Such role transformations occur when an ordinary left-hand vamp is intentionally"ragged" especially upon repetition of the same material, and the riffs which result take on a kind of melodic importance of their own: the second movement of the Third Violin Sonata is just one example of many in these works where full play is made with the musical possibilities of reversed characterizations.

It is worth mentioning that even in the pre-ragtime works Ives is testing out his piano accompaniments to such an experimental extent that their harmonic implications either become obscured by a welter of textural intricacy or just disintegrate completely.

From Accompaniments to Solos.

It was in his piano writing for the violin sonatas that Ives first freed the instrument from its purely subsidiary role as an accompanying medium. Here musical materials are treated with much more experimental ingenuity than in most accompaniments to the songs of the same period. Even in earlier movements Ives was beginning to fashion a language which embraced a wide number of styles from the marching band, barn dance and popular song to spirituals and hymns: all were mixed with elements from his own academic training. This resulted in an ever-changing selection of new keyboard approaches. A few examples will provide evidence for this fluency of expression.

Parts of the First Violin Sonata accompaniment are particularly helpful in showing Ives' rejuvenation of old ideas. Its opening movement extends traditional vamping into galop or two-step figurations: this compares well with similar passages from the finale of the First Piano Sonata sketched during the same period (ex.31). In fact much of the violin movement is based upon a march walking bass interspersed with vamps, syncopated pedals and pentatonic sequencing. The accompaniment to the third movement uses a wide handshape to determine even more dissonant patterns of sequences: They rise chromatically in both hands through the space of four bars (ex.32). Ives' treatments are at their most exploratory here: new types of melodic and rhythmic figurations abound, together with piled chords and elliptical phrasings: all anticipate kinds of rhapsodic writing used in the First Piano Sonata. For a movement conceived in 1900 the appearance of handshape-derived triadic chains is also quite unusual (ex.33).

The fact that in reprocessing abandoned experimental keyboard ideas for inclusion in the sonata accompaniments meant that such

thoughts were both reconsidered and then given a new musical existence. A case in point is Ives' use of "ragging" in parts of the second and third sonatas: here old and new ideas are juxtaposed, being often interchanged with those in the Ragtime Dances of the same period. But this type of crossover was decreed earlier on in the Largo when such transformations were first put into motion. Here the work's opening and closing pages used fairly traditional slow ostinato patterns undulating in gentle cross-rhythm: at its central section these became fast riffs (ex.34). Thus the melodic materials emerge from or recede back into accompanying riff and ostinato patterns.

More than any composer of his generation and whenever the creative situation demanded, Ives could instinctively move into or out of various musical traditions. Onto a multiplicity of styles he could graft his own melodic ideas, either as discrete additions to pre-existing melodic and rhythmic patterns, or derive new materials from their repetitions. All this presupposes a unique digital memory and phenomenal dexterity at the piano keyboard. Ives possessed both, not as a pre-ordained gift, but formed through years of free improvising at informal gatherings and also within the privacy of the organ loft and practice room at home.

g) GESTURES & OVERHAND TECHNIQUES

The evolution of Ives' keyboard style contains a further, though rather elusive component, that of gesture in performance. Many pages of the Memos rail against the exaggerated emotionalism, exhibitionism and hero-worship contained in the recitals of visiting European pianists during this period: from Ives' viewpoint American concert audiences often mistook an eccentric platform manner as a sign of artistic genius. This, coupled with the kinds of formalism in all cultured music-making, aroused both his ire and cutting sense of

humour. Nevertheless he did learn from the gestural techniques of such performers, at least in an indirect way. Mimicry often acted as a substitute for anger. In his own phrase, he liked to "take off" the performing styles of those affected musicians whom he detested, whether they displayed themselves in the city concerthalls, local church halls or indeed at the drawing-room soirees held in his youth. Ives' later diatribes against the feminism of American music-making go hand-in-hand with the way that he saw Romantic music being played; namely, the Romantic gesture often mattered much more than the actual performance. While mimicry figures increasingly in Ives' music, it must be remembered that in addition to borrowing from nineteenth-century styles he also noted the performance traits of some of his immediate contemporaries at Yale and New York. The early song In the Alley (1896) pays homage to one friend George Felsberg whose bar-room pianism was just an adjunct to his reading of a newspaper. Ives recalls:-

> When I was in college, I used to go down there and "spell him" a little if he wanted to go out for five minutes and get a glass of beer, or a dozen glasses. 65

But his observations did not end there; for, he respected Felsberg's guile. Conversely Ives' song There is a Certain Garden (1893) may be an early satirical comment on the kinds of affected gesturing that he noticed on musical occasions in Danbury: bar 7 contains an instruction to bring the left hand over the right in order to play an upper E over a D^7 chord. Similarly From "Amphion" (1896) carefully indicates that its opening E♭ arpeggio is to be given "musical" point by fastidiously playing each note with alternate hands to the top of the keyboard.

Before examining Ives' most individual use of overhand techniques it is necessary to digress a little and assess their importance within the nineteenth century. The music of Liszt and

and many lesser figures who copied the more extrovert forms of his piano writing abounds with hand-crossing figurations. Not only were such works designed to increase a performer's manual dexterity but also to accommodate the keyboard's widening range from mid-century onwards. Intervallic leaps of tenths, twelfths and fifteenths are common during the later Romantic period: no doubt they were influenced by the bell-like effects of Liszt's study La Campanella (1838) and similar descriptive pieces of the time. But the question arises as to whether Ives in America had much experience of such a high standard of virtuosic repertory. Pupils of Liszt like Richard Hoffman (1831-1909) and William Mason (1829-1908) contributed a great deal to the florid rhetoric of American pianism: this was the vacuous kind of style which Ives chose to lampoon in both his later solo writing and more humorous improvisations.

A strongly individual sense of musical fun first came to the fore when the composer was at Yale: it stemmed from the usual forms of undergraduate high spirits and more importantly enabled him to pour scorn on the academic tedium of this German-styled university. He was able to vent his feelings as a member of the college Hyperion Theatre Orchestra under its enlightened conductor Frank A. Fichtl. Ives seems to have had varying connections with this group between the period 1897-1904 and has given various descriptions of its musical pranks. He says that during the playing of a tune it was given ad hoc variation treatment,

> . . . sometimes putting these themes or songs together in two or three differently keyed counterpoints (not exactly planned so but just played so) — and sometimes two or three different kinds of time and key and off-tunes, played sometimes impromptu. The pianist (who was I, sometimes) played his part regardless of the off-keys and the off-counterpoints, but giving the cue for the impromptu counterpoint parts etc. . .
>
> Fichtl, in the theater orchestra, would get students in the audience whistling and beating time (sometimes) to the off-key and off-time tunes.

> . . . and in playing the songs . . . I used to play off-beats on black keys, etc., and often men would ask to have those "stunts" put in. 66

For Ives this was nothing new: he had played such tricks years before, when his father was alive. Writing in the Memos he says:-

> . . . I remember there was a kind of game--a way of playing off-beats pp on the nearest black notes (as the Arkansas Traveller) singing the air, right-hand chords in G, left-hand bass in G, and off-beats pp in G♭. etc. 67

Thus the kinds of free-for-all cacophonies produced in his Yale band were just a continuation of "boy's fooling."

An excellent example of his own invented routines occurs in a revised version of the song Watchman (lost, ms.c.1901) printed later in the 114 Songs and dated 1913: the accompaniment here contains quite a number of overhand figures which mix the composer's own invented "whip chords" and resonant clusters (ex.35). In fact all Four Songs based on Hymntune Themes (Watchman, At the River, His Exultation and The Camp Meeting) in the album are full of such devices: they were sketched out quite early on and represent Ives' careful transformations of these humorous "stunts" into bell-like imitations. Again this is a consolidation of piano-playing games into new compositional ideas. But whereas "whips" are very much his own invention, there are other occasions when it is difficult to assess whether a particular mannerism is original or just customary in performance practice of the time. A good example of this problem is the printed indication 'change "swipe" ad.lib.' at the close of In the Alley where the left hand has to cross over the right in order to play upper notes of the chords. Eitherway this is the first notated example in Ives' works designed for execution in more than one way: the score contains annotated "ad.libs." which Ives only allows the accompanist to "use Sat. night"(bar 17), or presumably when the beer was really flowing.

The composer's own explanations for the origins of these overhand techniques are fairly clear from his Memos. However, there is an additional possibility which could well relate to their use in gradually filling out and expanding the musical texture towards an important climax or indeed the end of a piece. The accompaniment to The Light that is Felt (c.1903, from an anthem c.1895) demonstrates this procedure well. In its later, printed version the texture is quite consistent: the slow speed of this Whittier setting is based on figurations of semiquavers falling pentatonically in the right hand with bell-like fifth chords in the left. Only in the song's final four bars does Ives wish to greatly extend its accompanying range by including an extra voice for left hand placed over the right. The choice of adding an extra counterpoint as well as increasing the harmonic rhythm as it draws to a close pulls the listener's attention away from the relative monotony of what has gone on before. This musically underlines the song's final sentiment "and there is darkness never more"; gentle though it may be.
While the piece is essentially in Ives' "old" style, extensive use of crossrhythms and non-synchronized harmonies in the otherwise bland semiquaver writing points to his increasing interest in small assymetrical units as used in the Ragtime Dances of exactly the same period. Again an approaching cadence is regarded as a potential opportunity for elaborating, extending and experimenting with his materials for emphatic use. Conversely, in the songs of his contemporaries this would have meant movement towards a point of rest — both harmonic and emotional resolution. Increasingly Ives preferred texts which often concluded with some sort of punch-line or rhetorical question as in The Cage (1906) and later West London (1921). While the former leaves the listener in the air, the latter's unrequited Plagal cadence quotes from Lowry's Cleansing Fountain pointing towards eternal singing from celestial climes.

Finally, a few words on overhand techniques in the violin sonatas. Though they contain some of Ives' earliest experimental piano writing, their generally contentious datings make it difficult to pinpoint the exact period when these effects were first put in: indeed, they could have been added later. Certainly parts of the first two sonatas strongly relate to sketches for theatre orchestra from around 1902. In the Barn is an obvious example with its consonant left-hand "whips" played at top speed in bars 134-8 and 171-2; though they are still essentially overhand "stunts" rather than indications of new experiments with chords. Contrasting these with the much more dissonant acoustical "resonances" in the song and sonata accompaniments to Watchman, it is evident that Ives was quite happy to apply varying overhand techniques in both "old" and "new" styles at the turn of the century as he did in the later piano solos.

h) SUMMARY

Ives' composing style and its movement towards a unique creative expression took around twenty years to come to the fore. From his earliest years in Danbury he had become accustomed to observing a total musical environment whether represented by concerts and recitals of the classics or more informal occasions such as band parades, barn dances, revival meetings and minstrel shows. Such influences were to permeate his young thoughts prior to formal instruction in nineteenth-century harmony and performance practice. Initially this came from his father George Ives who also encouraged his son to experiment freely with musical materials and subject them to various new kinds of organization. In choral works written for his local church some of these ideas can be seen in the harmonies and textures employed. Gradually Ives began to use the organ and piano to sketch out his experimental constructions:

few came to fruition during these early years other than in some polytonal counterpoint exercises and later settings of the psalms. However, by the time of his entry to Yale in 1894 he had written quite a number of songs in contemporary Romantic style and these were added to essays in vocal pastiche for his teacher Horatio Parker: many subtly incorporated carefully mollified elements from his ideas in voice-leading, chords and rhythms. The academic restraints of university life caused Ives to become involved in writing for fraternity shows and play popular piano in local bars. By this time his acute musical ear enabled him to reproduce on paper and at the keyboard a wide variety of styles ranging from the classics to those of minstrelsy, the music hall, folk dancing and novelty pianism. Many compositions produced at this time were either essays in self-instruction or based on a kind of mimicry of his experiences since boyhood.

On his departure from Yale in 1898 Ives had become fully proficient at writing in most of the Romantic and popular styles of the period, gradually interpolating them with mutual elements and others from all types of vernacular performance practice occurring around him. Very little solo keyboard music survives from these years, but the contemporary piano marches and accompaniments to the songs illustrate this progressive transformation: from Romantic attitudes to more universal ones which embraced an ever-widening set of musical cultures and approaches to performance. To these were added his own unique experiments with harmony, melody, rhythm and texture. Ives' enthusiastic childhood experience of "ragging" a particular melody or rhythm for fun was vindicated when ragtime pianism emerged on the scene before the turn of the century. As a result his compositions and keyboard performances underwent a radical change in order to accommodate

the informality and freshness of this new vernacular expression.

The period 1898-1902 can be termed as transitional in Ives' stylistic development; for, gradually the more Romantic traits within his songs and early movements of the violin sonatas began to recede into the background leaving only the merest hint of their nineteenth-century origins. Conversely, greater emphasis was given to the rhythmic assymetries and melodic truncations of "ragging." This, together with the inclusion of Ives' earlier experiments, subordinated traditional elements to such an extent that what emerged was a style based on psychological problem-solving which drew upon all parameters of his musical experience for its self-perpetuation. From hereon the composer's writing vacillated between traditional or experimental constituents with their respective attitudes towards performance practice. His eventual abandonment of these discrete categories altogether, resulted in the conception of hybrid compositions crossing syntactical boundaries of style: the 1901 Largo together with earlier parts of the violin sonatas' movements are representative of this new approach. Ives' development towards maturity would not have occurred had he not adopted such a multi-dimensional attitude to musical creativity over so many years. This evolved through countless hours of practical experimentation with all those elements of cultured and vernacular styles which he had assimilated since his youth. The onset of ragtime was to enable him to formulate a pianistic expression which was essentially open-ended taking shape in situ as his fingers improvised over the keyboard. Here stands the raison d'etre for experimental piano writing which was to follow.

References.

1. Ives, Memos, p.68.
2. Cowell and Cowell, Charles Ives and His Music, pp.24-26.
3. Ives, op.cit., p.42.
4. Ibid., p.43.
5. Ibid., p.42.
6. Elkus, Charles Ives and the American Band Tradition, p.21.
7. Ibid., p.22.
8. Ives, o.cit., p.43,n.3.
9. Ibid.
10. Elkus, op.cit., pp.22-23.
11. Ibid.
12. Footnote to the published score of A Theatre Set.
13. Ives, op.cit., p.68.
14. Ibid., p.33,n.4.
15. Kumlien,(Diss.) The Sacred Choral Music of Charles Ives, p.36.
16. Ibid., p.56,n.30.
17. Cowell and Cowell, op.cit., p.27.
    Wooldridge, Charles Ives, p.45.
18. Cowell and Cowell, op.cit., p.43.
19. Ives, op.cit., p.147.
20. Kumlien, op.cit., pp.393-404.
21. Ibid., p.122.
22. See 1973 publication of the score.
23. Kumlien, op.cit., pp.428-434.
24. Hitchcock, Ives, p.28.
25. Rossiter, Charles Ives and His America, p.45.
26. Ibid., p.55.
27. Ives, op.cit., p.116.
28. Ibid., p.116,n.3.
29. Ibid., p.33,n.2.
30. Cowell and Cowell, op.cit., p.35.
31. Ives, op.cit., p.120.
32. Ibid., p.34 and p.34,n.7. See also the published vocal score of The Celestial Country, p.17 and p.77.
33. Ives, op.cit., p.34 and p.34,n.7.
34. Rossiter, op.cit., p.45.
35. Hitchcock, op.cit., p.43.
36. Rossiter, op.cit., p.46.

37. Ives, op.cit., p.38.
38. Hitchcock, op.cit., p.43.
39. Ibid., p.44.
40. Ives, op.cit., p.34,n.7.
41. Ibid., p.120,nn.9-10.
42. Ibid., p.39.
43. See the 1959 published score of The Robert Browning Overture, bb.22-26, parts for wind and strings.
44. Ives, op.cit., pp.39, 130, and 178-179.
45. Ibid., pp.120-121.
46. Kirkpatrick, A Temporary Mimeographed Catalogue of the Music Manuscripts and Related Materials of Charles Edward Ives, Section 7E1, p.224.
47. Hitchcock, op.cit., pp.39-40.
48. Ives, op.cit., p.38.
49. Ibid., p.39,n.1.
50. Ibid., p.64.
51. Hitchcock and Perlis, An Ives Celebration, p.155.
52. See the 1959 published score of The Robert Browning Overture, bb.300-311 (trombone parts) as a comparison.
53. Ives, op.cit., p.44.
54. Ibid., p.44,n.5.
55. Perlis, Charles Ives Remembered, p.185.
56. Ives, op.cit., p.63.
57. Ibid., p.135.
58. Kirkpatrick, op.cit., p.181.
59. Ives, op.cit., p.34.
60. Henderson (Diss.), Quotation as a Style Element in the Music of Charles Ives,
61. Williams, "Figurenlehre from Monteverdi to Wagner", Musical Times, vol. CXX, no.1636, pp.476-479.
62. Ibid.
63. Ibid.
64. See "New England Folk Traditions." New World Records, NW 239.
65. Ives, op.cit., p.56.
66. Ibid., pp.39-41.
67. Ibid., p.46.

CHAPTER THREE

POPULAR PIANISM: A CATALYST FOR TRANSITION

a) INTRODUCTION

This chapter will trace the complex influences of popular styles and methods of pianism on Ives' own developing musical viewpoint. Where possible it is arranged in chronological order, though in contrast to the previous chapter will cover all those compositions which include some aspect of ragtime influences within their pages. Dealing with the kinds of informal musical and social environments that Ives experienced in his university years and later on his entry into business, the text will also cover those extra-musical influences that had some effect on his emerging creative language. Later sections will be predominately concerned with the influences of vernacular "ragging", ragtime devices and drumming routines on his "newer" style of piano writing. They will also show how uniquely Ives translates these into a personal syntax which progressively overturns the traditional organization of musical parameters. Explanations will be made for the composer's gradual movement away from nineteenth-century styles, and through a transitional phase towards his mature piano writing as represented by the later sonatas and studies. Again it has been felt necessary to deal with a wide cross-section of compositions, most of which contain some kind of keyboard obbligato writing which illustrates Ives' creative evolution. Finally the Three Page Sonata of 1905 will be cited as the composer's first assured solo work in his mature hybrid style.

b) ROOTS: EASTERN RAGTIME

The question arises as to what kinds of ragtime Ives might have encountered, and the extent to which he borrowed from these in order to create a very personal style of popular pianism. It must be remembered that he entered Yale five years before the publication of Joplin's pioneering "MapleLeaf Rag", though "ragging" as an accepted part of performance practice in American music-making had been commonplace as far back as Ives could remember. Essentially an extempore, off-the-cuff device like this seems at odds with the strongly stylized art-music performances of Joplin's classic rags as recorded by Joshua Rifkin. Understandably, as a serious composer Joplin had a purist notion of how his printed compositions should be played. He regarded them as works for the discriminating concert-goer and soiree pianist. Seeing no room for arbitrary "ragging" in classic ragtime, he often printed an admonition on his scores: "Notice! Don't play this piece fast. It is never right to play "Ragtime" fast." Reinforcing these wishes in "The School of Ragtime — Six Exercises for Piano" of 1908, the exact interpretation of all tempi and printed notes was made quite clear:-

> What is scurrilously called ragtime is an invention that is here to stay.. . . That real ragtime of the higher class is rather difficult to play is a painful truth which most pianists have discovered. Syncopations are no indication of light or trashy music, and to shy bricks at "hateful ragtime" no longer passes for musical culture.. . .
>
> It is evident that, by giving each note its proper time and by scrupulously observing the ties, you will get the effect. So many are careless in these respects that we will specify each feature.. . .
>
> We wish to say here, that the "Joplin ragtime" is destroyed by careless or imperfect rendering, and very often good players lose the effect entirely, by playing too fast. They are harmonized with the supposition that each note will be played as it is written, as it takes this and also the proper time divisions to complete the sense intended: . . . 1

Joplin attempted the impossible: taking the practice of ragging-type rhythms as a basis for serious composition he little realized that this innate folk-performing practice was a self-perpetuating one. The purchase of his works by a rag-crazed public immediately meant that their gentle speed would be "swung" and subtle rhythms "ragged" to pieces. But this "classic St.Louis concept of ragtime, as exemplified by Scott Joplin"[2] bears scant relation to the kinds of pianism that Ives was to enjoy and practice around Yale and New York. While the roots of both composers' popular styles were based upon jigging rhythms of nineteenth-century cakewalk, Joplin endeavoured to pare away its often complex improvised syncopations and salacious connotations. He wished to raise it to the level of art music: to resemble the waltzes, polkas and rondos of earlier composers whose own works, like his, were nevertheless only pale reflections of much more vital folk traditions. Ives, in contrast, aimed to retain such elements by encapsulating them in an evolving style which encompassed extempore playing.

There is no doubt that he derived an individual pianistic viewpoint from his experience of the popular stage by becoming involved in a process of listening, remembering and participation. Few of Joplin's rags can be called theatrical when contrasted with Ives' own breathtaking forays into technical exhibitionism as expounded in the "ragging" sections of his piano sonatas and smaller pieces. However, a pianistic tradition did exist, also with roots in cakewalk, which unlike Joplin's retained great opportunities for the freely applied improvisation of a wide variety of idiosyncratic musical effects. William Bolcom has called this "Eastern Ragtime". Centred around New York, Baltimore, New Orleans

and Atlantic City it:-

> . . . betrays a diversity of style that obscures clearcut distinctions between ragtime, 'stride piano' and early jazz. The tendency was towards a fast brilliant piano style (rarely reflected in the drastically simplified published scores); whereas one danced a stately slow drag or cakewalk to a 'classic' rag, only the frenetic 'animal dances' such as the turkey trot or chicken scratch were suitable for the more urban tempo of eastern ragtime.. . . But this is the most familiar form of ragtime, from "Hello My Baby" (Howard & Emerson, 1899) to "12th Street Rag" (Euday Bowman, 1914), and there is no denying its exuberance. 3

Ives' own references to ragtime will be found to be too broad, and any study of his personal "ragging" style certainly bears no relationship with specific schools of ragtime performance. His experience as impromptu pianist at minstrel and vaudeville shows was primarily as accompanist rather than soloist in his own right; though no doubt he enjoyed giving solo turns whenever the opportunity presented itself. In compositions written from 1900 onwards, any of his quoted materials borrowed from popular musical sources are invariably related to "pop" songs of the time. Central Park in the Dark (1906) for instance, includes "Hello My Baby" in one of its two piano obbligati,[4] alongside "Yankee Doodle Dandy" (G.M.Cohan, 1904) and "Ben Bolt" (Kneass & English, 1848). These tunes were popular during this turn-of-the-century period, as were the multiplicity of national airs mixed together in the central movement "TSIAJ" ("This Scherzo Is A Joke!") from the Piano Trio (1904-5).

Such borrowed quotations recreate the impression of a well-oiled bar pianist "playing dirty" with riffs and wrong notes executed at dare-devil speed in Eastern-Ragtime fashion. Perhaps the nearest fumbled equivalent occurs in the "fast polka played very coarsely" towards the end of Berg's Wozzeck:[5] however, the opera's expressionistic horror at this point bears no resemblance to Ives' witty portrayal of trick pianism in his compositions.

A lack of specifically identified ragtime styles around the turn of the century has been emphasized by Axel Christensen who, following on from Ben Harney's first tutor of 1897, wrote instruction books on ragtime (1903) and vaudeville (1912) playing; he says:-

> In 1902 and 1903 there was no accepted method or system of playing ragtime, or syncopated music if you prefer, by people as a whole, either for piano or orchestra. The public got its knowledge of ragtime, for the most part, by listening to trick pianists in vaudeville, or at music halls, and the information they obtained was unsound because at that time no two pianists ever played syncopated numbers alike. They couldn't because . . . there was no set system in vogue—and that also applied to the ivory ticklers in New York's famous Tin Pan Alley, where most of the 'rags' emanated. 6

Even a little later between 1908-14 when W.H.N.Harding played in Chicago it could be thought that the various schools of ragtime had been consolidated. But this was certainly not the case, as he recalled in 1964:-

> In Chicago in those days, if you could only play what was printed you had little chance of a future. Rag as printed may have been used as a basis by coloured boys who had to learn by ear.. . . I heard many of them, and I think they played the Maple Leaf Rag more as Joplin wanted than the rest of us did. Most city listeners . . . liked brilliant verve and in a special appearance with only a few minutes to make a showing it was necessary to put on a sparkling performance. 7

For Ives, a "ragging" pianist who deputized for George Felsburg at Poli's Theatre near Yale, all solo turns had to bear some fingerprints of personal style; such complete individuality is borne out by an unusual approach to ragtime pianism in his mature compositions. Accordingly it is hardly surprising that wide discrepancies invariably occurred between printed music and the actual performances heard. Christensen offers a commercial explanation:-

> There was still another vital angle to analyze. If such pieces were published with the music written as it was played by . . . ragtime composers and musicians, not one pianist in a thousand could play them. 8

And no ordinary pianist would buy them.

Axel Christensen's observation offers a major reason why such

a complex score as Eubie Blake's "Charleston Rag" of 1899 had to wait until 1975 before it was published. In contrast, a relatively simple cakewalk like Joseph Gearen's "Big Foot Lou"[9] was both written and published in the same year as Blake's. For its early period this little piece took the daring step of providing a much more difficult extra "ossia" section on the final page in "Rag Time." Here the performer was given an option to try out his own virtuosic expertise on this ragtime variation, or alternatively use it as a possible vehicle towards further rhythmic improvisation; an interesting reflection of joint needs on the composer's part. Furthermore, the employment of arrangers whose names were appended to that of the original composer on printed editions, explains the necessity of simplifying the music in order to achieve some kind of saleability for a buying public of essentially white pianists. It was only later in the decade that larger publishing houses were prepared to put into print more complex types of piano ragtime, eventually giving way to countless "novelty pieces" written after the First World War. Ives' own attitude embraced that of the live ragtime performance and one in creative expression which was practically impossible to transcribe on paper; though in the piano sonatas he was to make very successful attempts at recording such complex procedures. His approach has its roots in the kinds of Eastern Ragtime as defined by Bolcom, and a type of piano playing which was practiced predominantly by black vaudeville performers of the 1890's.

It appears that white or "blacked-up" players were rarely able to achieve the kinds of rhythmic sophistication of their black counterparts for:-

> . . . the master Negro pianists went far toward exhausting the development of delayed and anticipated timing, of odd-numbered over even-numbered meters, and of shifted accent. From the ultra-

> simple syncopation of the early cakewalk grew a complex rhythmic system that offered a wholly new pathway for composition and that even today eclipses the rhythmic work of any "serious" composer. 10

This final generalization is contentious if one cites the kinds of ragtime-inspired compositions of Ives or Conlon Nancarrow (b.1912) as highly complex rhythmic constructions by "serious" contemporary composers. While the extract's general tenor points towards Ives' own very personal attempts at achieving a unique "ragging" style, it is impossible to ascertain whether he was more influenced by white or black pianism during a period when countless interactions were taking place.

c) EXTEMPORANEOUS FUN

In his Memos Ives could recall an occasion at the Danbury Fair in 1892 when he had heard "black-faced comedians then, ragging their songs."[12] His acquaintance with minstrelsy increased from these years onwards, and the vast selection of musical styles included in these shows offered a wide range of repertory and performance practice in which to interest himself. Such popular entertainments, a regularity in town life, represented a kind of melting-pot of American and European musical experiences:-

> The music of the minstrel shows was a melange of well-known popular songs (even some of the sentimental household type), of adaptations from other sources (even of British and Italian opera airs), of dance tunes and dialect songs. These last two were the mainstays of the shows and had the most remarkable music. 13

Such popular culture knew no stylistic boundaries. Ives frequented these shows both as listener and participant at Yale and later as an insurance businessman in New York.

Outside Danbury his first real encounter with a wide range of contemporary cultures was on a visit to the 1893 Chicago World Exhibition.[14] Its strongly international flavour introduced him to a broad selection of non-western folk traditions as well as

to the American adaptation of these into what was exotically termed "Ethiopian Music" — used to encompass all styles of popular and instrumental black or "blacked-up" music of the time. At the turn of the century when most big-city vaudeville circuits were exploiting this "ethnic" fad, composers and arrangers of Tin Pan Alley were transforming these numbers into popular dance songs such as the "bombashay" and "hootch-kootchy"; the latter humorously incorporated into Ives' quartet Scherzo of a few years later (1903).

It must be emphasized that the composer would have recognized strong connections between the kinds of marching-band performance antics of his father's Danbury musicians and those of vaudeville instrumentalists.

> They shared (and with hordes of parlor pianists, of course) all the popular overtures and operetta favorites, the waltzes, polkas and galops, the descriptive pieces, fantasies, and idylls— but mostly they shared the popular marches, those band perennials which were played and hummed and whistled from coast to coast, danced world-wide as the two-step, and sung lustily at every college bonfire rally and torchlight parade. 15

Even to this day bands of the English and American armed services share similar repertory with theatre-pit musicians, and the practice of playing "pop" medleys, light music and "gems" from the great masters is still commonplace. This would have been consolidated by Ives' exposure at Chicago to virtuosic performances by the Sousa Band. They were one of the star attractions there. Arthur Pryor, their lead trombonist, had become famous for his celebrated antics. Here the possibilities of extemporaneous fun by him and his fellow instrumentalists would have offered the young composer much food for compositional thought. "Pryor's trombone spoke in a humorous folk dialect"[16] which contained "authentic Americana preserving the flavour of the bands that once paraded the streets to advertise minstrel shows and circuses as well as electoral candidates."[17] To this Ives was no

stranger. At a time when he was at his most creatively receptive he would have easily recognized these non-notated elements of musical performance; for, the time-hallowed habits of generally "ragged" rhythmic syncopations were progressively permeating all types of popular music-making during this period. Pryor's style alongside that of so many other theatre-band contemporaries ensured that no melody, however sedate or sacred could be exempt from such wayward rhythmic treatments. Already Ives had pointed this out in sections of his Variations on America two years earlier.

The position of extemporaneous fun as an important element in theatre-band performance practice presents a problem. It is an intrinsic part of the tradition, an expression of individuality, always played "off-the-cuff" and basically ephemeral in appeal. Accordingly such freedom could only be maintained by not notating such effects in the printed music. Granted that Ives in the Flag Song and The Circus Band first recorded these habits of popular playing on paper, but his reasons for doing this demonstrate a love for the tradition and an insistence that such mannerisms are an intrinsic part of their musical experience. Both songs show Ives' attempt to cross cultural boundaries between the freely improvised folk world of Pryor's performances and the quite strictly notated march songs of Sousa and contemporaries. For this reason it is not surprising that in 1903 Pryor broke away to form his own band in order to perpetuate his own "folk dialect" rather than continue with Sousa who composed in the European tradition. Soon this new band was playing in the current "ragged" cakewalk styles of the period, and drawing upon a repertory far wider than that of Sousa. Early recordings demonstrate that extemporaneous fun and syncopation took precedence over cultured musical taste and reverence for classics of the American-European band tradition:

Ives would have approved.

Aside from the antics of the theatre-band, there was in the New England tradition an interesting ad-hoc feature called the "muster." Though it possibly anticipated the traditional jazzband "jam session", the "muster" was much more freely organized and had a habit of breaking down at any moment. It might consist of someone at the beginning or end of a practice piping up with an improvised or known tune, or indeed a variant of either. Following this, musicians would enter in sequence adding their own melodic bits-and-pieces with each man "doing his own thing" in a demonstration of cussed one-upmanship: generally it was a race to see who could last out the longest. As improvised game-playing this feature meant that any performer could move in an out of a wide range of quoted or original tunes and occasionally find contrapuntal empathy, however fleeting, with some other player in the band. This rogue element in folk performance practice knows neither cultural nor stylistic boundaries in a process where all kinds of tunes, rhythms and technical effects move quickly through a player's head.

This sort of experiment was not necessarily confined to the realm of band playing. The improvised mixing of a succession of sacred and secular national songs was often within the domain of the church organist as well. Ives was no stranger to this either. One of his friends recalled him playing for a church service in 1900:-

> I am sure that various members of the congregation were in a state of continual quandary whether Charlie was committing sacrilegious sins by introducing popular and perhaps ribald melodies into the offertory, etc. I am sure that he was under grave suspicion, but the melodies were so disguised that the suspicious members of the congregation could never be sure enough to take action. I think it is certain that he did interweave them, not from a sense of humour or tantalization, but because that was the way in which his musical mind found a certain satisfaction. 18

Similar games are played to this day by organists with a modicum of contrapuntal expertise; and there is a certain type of intellectual

satisfaction in achieving a subtle but precarious equilibrium between musical brinkmanship and the prospect of imminent dismissal. Here a folk habit becomes incorporated into the acceptable practice of improvisation during divine service. The commentator above is being diplomatic: Ives possessed a punning humour and this was essential for the success of this kind of premeditated ruse. He knew that the impromptu improvising of countermelodies was commonplace in the practice of non-notated playing. Its notated equivalent, the quodlibet, where often sacred and secular melodies were juxtaposed, had been used in art music for centuries. Even J.S.Bach had included folk tunes in the final quodlibet of his Goldberg Variations; a work with many light moments. The whole concept of writing, or more important improvising different tunes in combination derives as much from folk music as from the playing of a string of melodies in medley form at a barn dance or minstrel show. The published equivalent was freely available in Gottschalk's and others' concert paraphrases, or later in medleys issued by Tin Pan Alley during the 1890's. Many, like Max Hoffman's "Ragtown Rags" (1898) were long enough to be used intact for theatre reviews and dance routines. Such topical sheet music which incorporated current popular songs parallels the kinds of medleys that Ives would have played impromptu while he was "spelling" for George Felsberg.

Cultural dividing lines between Gottschalk's piano quodlibet L'Union and the band "muster" of Ives' childhood are impossible to define at a time when New York publishers were avidly arranging, rearranging or plagiarizing and plundering from America's accumulated musical heritage. The Gottschalk showpiece differs little from Arthur Pryor's 1903 recording of an anonymous "General Mixup" which cobbles together similar patriotic tunes.[19] Ives' own Country Band March and its later counterpart Putnam's Camp (1912) are logical

continuations of this muster-mixup technique added to which are all the faults and extemporaneous fun which Ives enjoyed so much.[20] Later on in the thickly textured movements of the Fourth Symphony (1909-16) and Second Orchestral Set (1909-15) it is possible to draw parallels with the improvised mixing of borrowed tune quotations that the composer had heard many years before. By far the most relevant example not only of Ives' very personal quodlibet writing but also as a demonstration of how he actually performed popular music in public is to be seen in the trio section of his piano study #20. This will be discussed in chapter six.

d) CULTURAL PERCEPTIVITY

Aside from a few accounts relating to his experiences as an organist in Danbury, there is no available evidence of Ives having participated actively as a popular pianist in these very early years. Certainly his descriptions of local barn dances and staged minstrelsy are vivid; it does seem likely that he tried his hand at such styles both as soloist and accompanist. Already it has been shown that from childhood Ives possessed an experimental approach to the keyboard; yet, these particular skills seem rarely to have been paraded in public other than in the quiet interludes that he improvised during services. Yale presented him with his first real opportunity for showing his talents as a popular composer-performer: he became involved with writing march songs and numbers for varsity shows like Hells Bells of 1897.

At this time Ives' experience as a stand-in popular pianist proved most beneficial in the acquisition of non-academic musical knowledge. There is no doubt that he would have had to amass a wide repertory in order to sustain the attention of an audience or to accompany a variety of stage acts. New York City was only an hour's

train ride from Yale, and though it is difficult to assess the extent to which he visited the theatres there, the Memos often recount the kinds of musical habits that he heard on such occasions.

It has been suggested that Ives' strongly personal pianism may bear some correspondence with that of the white vaudeville showman Ben Harney.[21] Certainly the latter's appearance at New York occurred while Ives was attending university. Harney first "hit" the City in February 1896, performing at Keith's Union Square Theatre to great public acclaim. He claimed to have invented ragtime although his stage act consisted primarily of "coon songs" in the customary cakewalk style of the time. Despite his specializing in the imitation of negro plantation ditties and producing favourites like "Mister Johnson Turn Me Loose" and "You've been a Good Old Wagon but You've Done Broke Down" (both of 1895), he rarely departed from the white traditions and melodic styles of Anglo-American folksong. The latter for instance, is related to the pentatonic tune "A Frog Went A-Courtin'," and British in origin. Like most popular musicians of his day, Harney quite happily translated the old wine of folk sources into new vintages for presentation on stage. At a time when black syncopated styles and vocal embellishments were all the rage, it was of little consequence that the relatively four-square rhythms of white folksong should be ragged or its melodic contours readjusted for wider popular appeal.

Presentation of "white" tunes in "black" performance practice shows that:-

> Harney certainly did not originate ragtime, but he was a link in the chain that connected the old-time "Ethiopian business" with the folk-rooted novelty called ragtime. 22

After a fashion Ives too attempted a fusion of performance approaches, though he coupled the freedoms of "ragging" with his much more eccentric kinds of experimentation at the keyboard.

While there are possible coincidences in the ways that Ives and Harney treat the piano and their musical materials, it may even be likely that the composer saw Harney play in person in 1896. Many vaudeville artists went round New York's Keith Theatre Circuit, and while it is reported that Harney gave his famous performances at Keith's Union Square Theatre it might be that Ives befriended theatre-goers and pit musicians attending this establishment. The Memos record that "somewhere between 1903 and 1906" Ives later had some of his Ragtime Dances performed by Keith's Theatre Orchestra which was "then in 14th Street" (the word "then" hinting that the theatre might have moved a few times).[23] Current maps show that Union Square crosses Broadway at 14th Street: he could indeed be referring to the original Harney venue, and may have attended these performances as a second-year undergraduate.

Ives' entry into New York business in 1898 did not prevent him from continuing to be involved with the realm of theatre music; though the extent of this involvement seems unclear. Even as late as 1915 he still had connections with the Globe Theatre on 14th Street,[24] and appears to have been in touch with some of their players from 1905 when he first approached them to try out some of his experimental scores.[25] Certainly the period 1900-10 contains all of his works for theatre-band forces and no doubt he had to goad players on by acting as a pianist-conductor on these occasions.[26]

The composer's accounts of his trick pianism date mostly from these ragtime years. In addition he had begun to absorb earlier elements from some of his very early Danbury experiments. This mixing of popular and empirically-derived piano styles only came together after he had left the academic strictures of Yale and had moved with many ex-student friends into various bachelor apartments collectively nicknamed "Poverty Flats." Living in such a close-

knit community and yet free enough to organize his career and make wide social contacts may well explain Ives' explosion of creativity during this period; for, the years 1898 to his marriage in 1908 were remarkably happy ones, and he formed many lasting friendships with young men of his own age, interests and sporting activities. Chamber works produced often reflect this camaraderie, youthful high spirits and masculine chauvinism, many of which are expressed in musical sound portraits resembling student pranks, or in Ives' own phrase "Take-offs": Skit for Danbury Fair (1902); Yale-Princeton Football Game (1899); Rube Trying to Walk 2 to 3 (1906); The General Slocum (1904), based on a boating disaster; Mike Donlin-Johnny Evers with Willy Keeler (1907) on baseball heros; Runaway Horse on Main Street (1905?) — some are lost, while others reappear in later mature works, though often only in fragmentary form. Such cartoons and take-offs were conceived or perhaps initially improvised as musical evocations, satirical jibes or filmclips of current events in Ives' and his friends' lives at the "Poverty Flats".[27] This intense experimental activity increased after he resigned his last organ post in 1902, though it soon deprived him of hearing in situ performances of his sacred choral works which had been so encouraged by Dr.Griggs. But this relinquishment enabled Ives to spend more time in cementing his connections with the Keith Theatre. Already it has been mentioned that he began to revise and rewrite old organ pieces and include them in parts of the Third Violin Sonata accompaniments. Certainly he revived his interest in the piano at a time when the performance freedoms of pit musicians enabled him to renew his acquaintance with the antics of "boy's fooling" from Danbury days. Accordingly from 1902 the Ragtime Dances and their associated piano solo movements in the sonatas and studies began to take shape.

e) IVES THE PERFORMER

The composer's association with theatre pianism between 1897 and 1910 is quite clear, though his own writings only rarely give details on the kinds of repertory that he played. Other than previously quoted "pop" tunes like "Hello My Baby" we cannot be certain as to the extent of his knowledge; neither is it possible to find out whether he presented such tunes to the public in a manner of ragtime interpretation customary for the period. Alternatively, were his renditions just memorable for their eccentricity rather than their popularity? On listening to Ives' later recordings of pieces, fragments and improvisations the latter possibility seems likely. Remembering that these pressings were for strictly private consumption, nevertheless their often inaccurate performances are the nearest guide that we have to Ives' idiosyncratic manner of playing.[28] They cover a wide range of musical culture from nineteenth-century styles (Improvisation on Themes from the Second Symphony-1895 version), marching (March No.6-c.1895; They Are There! -1942?), "ragging" and ragtime (studies nos.20, 23, 11), improvisations on Emerson from the Concord Sonata (The Emerson Transcriptions), three completely free improvisations (named respectively X, Y and Z by John Kirkpatrick) and a near perfect realization of The Alcotts. Considering that Ives was in his sixties and in poor health when these recordings were made, their range of style and expression is even more astounding. Added to this is the possibility that he may well have executed most of these pieces from memory, especially as a fair number have their sections extended, contracted, totally changed or subjected to further in situ modifications. Many takes are embellished with Ives' own idiosyncratic "boy's fooling" and vaudeville pianism: some items are taken at break-neck speed, others at a pace which can only be described as

aimlessly contemplative; their dynamic range is wide, though this could be connected with the primitive studio techniques employed; they are well pedalled, occasionally to such an extent that Ives may intend a corona of harmonic resonance around the chords and arpeggios played: this occurs especially in the Improvisations X, Y and Z, and in takes using popular vamping. Nearly all these recordings freely convey their performer's intensity and power of musical commitment. Despite Ives' frailty at this time, there is no doubt that he must have possessed a phenomenal technique earlier on and that his undergraduate nickname of "Dasher" seemed most appropriate.[29]

In 1969 Carl Ruggles said of the composer,"I never heard a better pianist in my life than he was."[30] Similarly it appears that Ives too was right when he boldly asserted, "There is nothing that I have ever written for a piano that I haven't been able to play."[31] Even Lou Harrison upon meeting him in 1947 "realized that the man had memory of every page he'd written no matter what a mess it was or where it was."[32] With such a wide recall for his and others' compositions Ives rarely had recourse to reading from scores on more than a few occasions. Accordingly he could concentrate on perfecting his own virtuosity by drawing upon his creative memory. John Kirkpatrick when listening to the composer noticed that his "was a deft, flitting kind of playing, often seeming to be all over the keyboard at once."[33] A nephew Bigelow Ives had occasion to witness the "Dasher" in full flight, remembering that while they were both looking at a piece his uncle

> . . . would cease working on a difficult passage that might be beyond our depth and break into one of those ragtime pieces or a march, and he'd do it with such spirit that it was really thrilling. 34

Like all ragtime players Ives preferred the more percussive

qualities and thinner tone of the upright piano. His nephew also recalled a most virile performance of the patriotic Ivesian war song He Is There! based on G.M.Cohan's current 1917 hit tune "Over There!":-

> He tried to get me to sing it, and if I didn't sing with enough spirit or gusto, he would land both fists on the piano. "You've got to put more life into it," he'd say. There was one little passage which called for a real shout, but I shouted very timidly and he nearly hit the roof. "Can't you shout better than that? That's the trouble with this country--people are afraid to shout!" 35

No doubt such a performance resembles that captured on Ives' much later private recording which includes a great deal of ecstatic foot pounding in character with Ben Harney's own very earthy and vital renditions of the 1890's. Another visitor Dane Rudhyar, was also witness to such terrifying exhibitions for:-

> When he played on the piano--it was a little upright--he danced, jumped on the seat, shouted, and sang. 36

Indeed it is even possible to hear some of the composer's humming on his recordings.

Ives' often wry humour, again a feature of any showmanship, was appreciated by John Kirkpatrick who remarks that his "sense of humor always remained very much as it was at Yale--that is, turn of the century puns.[37] The title of his late Varied Air And Variations clearly conveys this rather acquired taste — "Very Darin' Variations?"[37a] However, a play on words resulting in a hit-or-miss play on meaning often acts as a strong basis for Ives' musical ideas: this can lead to the more intellectual construction of a conundrum or problem-solving puzzle. Other titles like All the Way Round and Back and In Re Con Moto Et Al for chamber ensemble are both subtle guides to the compositional processes used in these works. Similarly double-entendre effects can also be seen in headings to the piano Take-offs and

kinds of scribblings appearing in his manuscripts. He relished such types of game-playing with "two things going on at the same time, each of which would throw the other into a funny incongruous light".[38] The raising of the vernacular pun to a reasoned chain of musical exploration relates strongly to Ives' consummate ability for memorizing those things which occurred within his day-to-day consciousness. An awareness of contemporary music often showed itself unexpectedly, and his opinions of some composers' works were now and again portrayed through pianistic lampooning.

Elliott Carter says:-

> I remember vividly his "take-off" at the piano of the Ravel chord ((from 'Daphnis & Chloe')) and of the repetitiousness of Stravinsky ((from the 'Rite of Spring')) . Ives was very literate and sharp about this—he seemed to remember quite clearly bits of what he had heard and could parody them surprisingly well. 39

It is John Kirkpatrick who, on spending a lifetime studying Ives' Concord Sonata, best sums up the kinds of creative processes which went on in the composer's mind while he was conceiving a piano piece literally "under his fingers." This capacity was enormously complex, but Kirkpatrick goes some way towards revealing Ives' uniquely gestatory and intellectual approach:-

> You play it with all kinds of memories, all working together— the aural memory of the way you know it sounds; the tactile memory or the tactile sense of interval with the fingers sort of doing their dance into the keyboard in a kind of massage of each slur; the dramatic memory of the way it unfolds; the synthetic memory of the way it coheres or the way it makes sense; and (if you're lucky) a kind of spiritual memory of just the precise approach to life in general. But that's nothing you can aim at very consciously—that's a kind of reward. But all those memories, they work together. 40

f) "RAGGING"

It took Ives at least the five years between 1900-1905 to effect a gradual transition between his "old" and "new" styles. Even so, it is frequently impossible to date precisely the completion of many works during this period as these underwent a constant

process of revision in the light of the composer's ever-changing ideas. The Largo has already been shown to exemplify this transition: "new" features of ostinato patterning, drum-chords and routines in the accompaniment are mixed with "old" ones in the Romantic lines of the solo parts. However, it is the song Walking (1902?)[41] which truly anticipates the composer's mature style: the accompaniment also, is an elementary example of "ragging" techniques which appear later in the solo writing. Set out as a musical patrol, the form of the song is essentially open-ended; it moves at a spirited pace with reiterated footfalls and chordings which suggest the tolling of bells. The central episode, unusually set for piano solo, takes the listener on an aural journey depicting the successive experiences of a valley, a church, a funeral, a road-house and a dance: the vocal line returns and the song plods on into the distance, out of sight and earshot. The overall impression conveyed by this work is one of ongoing human activity which extends far beyond its closing bars.

In addition to the contrasts of style in Walking, the piano-solo section aptly shows how Ives uses simple but progressively subtle rhythmic transformations of "shifts" or crossing accents to change two-step walking to "ragging" two-step in a more popular idiom. This is achieved by obscuring the duple pulse in crotchets, by adding an extra quaver here and there in the left-hand part, and then later on repeating the process in the other hand until strong downbeat divisions are blurred (ex.1). Allusions to ragtime marching are obvious here, but like many devices used by Ives, explanations can rarely be clear-cut. His choice of a tritone relationship in the left-hand patterns also, due to its harmonic instability, reinforces the impression of bells often tolling unevenly in the distance: in one place, at bar 62, a pianissimo

cluster-chord in mixed thirds peeps through to reinforce the sonic imagery.

The displacement of regular duple or triple rhythms and their translation into arhythmic units obscuring traditional upbeat-downbeat structures is well demonstrated in both works mentioned above. Clearly Ives' experience as a "ragging" pianist shows that the traditional forms of melodic treatment as exemplified by symmetrical antecedent-consequent phrase structuring were in danger of being dismantled and fragmented by such tricks. Already in an earlier discussion on the violin sonata accompaniments mention has been made of Ives' tendency to fragment borrowed quotations to such an extent that just a couple of notes or a short rhythmic gesture may well elicit the most frustrating question — Is that snippet by Ives or taken from another composer? In the mature works this quest for such origins becomes increasingly enigmatic. This is because Ives continued to work over the rhythmic and/or melodic shapes of his borrowed materials in order to suit his creative purpose at any given moment of musical inspiration.

The composer's obsession with "the practice of using a constant unit (usually an eighth note) to underlie all the different meters"[42] while unique in the 1900's was soon to be taken up by Stravinsky, Bartok and many others. Connections may be made here; for, Ives and his near contemporaries in Europe were only drawing from the realms of folk music, where the use of small metrical units has always been commonplace. The Europeans could look to the east and Asia Minor; Ives chose Gaelic and negro vocal traditions progressively filtering into popular music. Whatever the primitive musical culture, simple chanting of limited melodic interest is given colour by the process of embellishment; hence short reiterated riffs centring around one note can be adorned by the most dissonant and florid of musical

arabesques. This is the key to Ives' viewpoint at this time: the riff as a building device could be used to structure phrasings which might expand or contract according to the creative whims of the moment. Presumably the composer worked out such processes privately at the keyboard, after having experimented with them tentatively in public.

A study of those piano scores which have been influenced by "ragging" reveals that normally Ives sets up a regular marching or drumming rhythm in the bass, and onto this he superimposes a melodic line: invariably this is subjected to a process of progressive degeneration, until all that is left is a three or four-note riff which is greatly subordinate to the "ragging" of the rhythmic syncopation. Conversely the reverse procedure can happen: again, a regular left-hand rhythm is set up and onto this is superimposed a short riff; it is gradually extended and develops eventually into a coherent melodic phrase or borrowed quotation. Usually Ives notates such riff expansions and contractions at some speed. Movements like In the Barn leave no doubt about the popular precedents of improvised instrumental playing that underlie these unique ideas.

Yet, this does not fully explain the slower and much more extended ostinato patterns used in some of the transitional works. Their appearance in the instrumental Largo and song The Children's Hour of 1901 and even the later Largo Cantabile for strings (1904; arranged as Hymn for voice and piano in 1921) invokes a nostalgia in the listener which appears far removed from the brittle impulsiveness of "ragging" rhythms. The cross-rhythms in these pieces, together with more complex mensural treatments applied in the Harvest Home Chorale No.2 (1901?) and From the Steeples (1901?), infer that Ives may already have been progressing towards innovative methods of rhythmic texturing before the bolder elements of popular "ragging" came to colour his "new" works. Indeed it was after he had tried out various riff arrangements

in the Ragtime Dances and their offshoots in the First Piano Sonata that he was to return to the longer ostinato as a compositional unit: later, mature scores like the Second String Quartet, the two Orchestral Sets and parts of the Fourth Symphony together with many song accompaniments of the 1920's emphasize this point very clearly. However, very much earlier and soon after the turn of the century, Ives was to direct his enthusiasm towards the assymetrical possibilities of "ragging shifts" in performance. The Ragtime Dances and related piano writing within the sonatas and studies offered him this opportunity.

g) THE RAGTIME DANCES

From his musical trials with various theatre bands Ives gradually put together a set of Ragtime Dances between the period 1902-1904. They amounted to:-

> . . . (about a dozen) - mostly for small theatre orchestra. Some of these were arranged for various combinations of instruments, some for piano and used as scherzos in some of the piano, and violin and piano, sonatas and orchestral sets later. Of these, some have the same themes, strains, etc., but somewhat differently. Thus they do not all stand as different pieces. 43

Only four discrete dances survive, being in short-score sketches. In order to locate the remainder, many existing either in fragmentary or recomposed form within a host of later compositions, it is often necessary to study these mature scores and then identify those sections with earlier ragtime origins. Examples from these dances, mostly for piano as solo or accompaniment turn up in the Second and Third Violin Sonatas, The Skit for Danbury Fair, Set for Theatre Orchestra, the First and Second Piano Sonatas, the two Orchestral Sets, various experimental chamber pieces, Central Park in the Dark, many songs, the Fourth Symphony and

Quarter-Tone Pieces for Two Pianos. Looking at photostat copies of the original manuscripts of the Ragtime Dances it is evident that Ives first sketched these out in piano-conductor form; ad hoc instrumentation was added afterwards. Alongside the Country Band March and the Overture 1776 the dances are a further extension of his experiments in "ragged" rhythms and continuing treatment of fragments from favourite "pop" tunes, hymns and folksongs.[44]

Contrasting with the two band pieces above, the dances take elements of quotation into a much more abstract world of rhythmic ingenuity inspired "shifts." Judith Tick, referring to the derivative ragtime scherzo IIB in the First Piano Sonata, further defines this intrinsically vernacular device as "the placement of accents on a succession of different beats." In order

> To achieve the improvisatory effect the pianist could readjust the rhythmic relationships between notes, relocate the tenuto accents and add extra beats to the measure, thereby altering the meter. 45

Ms. Tick also refers to the second movement accompaniment of the Third Violin Sonata which like that in the First Piano Sonata includes Ives' own instruction for the performer to "ad.lib." if he so desires. In the following appraisal of "ragging" tricks and techniques, his obsession with small rhythmic units ranging from displaced quavers to demisemiquavers will be made clear.

h) PROSPECTS OF PERPETUAL VARIATION

The progressive rhythmic fragmentations practised within both the Ragtime Dances and their solo derivatives meant automatically that works incorporating borrowed tunes and themes as a part of their compositional texture could well have their materials subjected to a similar process of melodic dislocation and disintegration. Already in the Country Band March and Overture 1776 such borrowings were either presented as remembered head-

motives only, or just mere fragments from these were incorporated into the general texture as brief melodic riffs. As Ives' piano style evolved these small rhythmic and melodic gestures became inseparable from each other; they were equal grist for his creative mill.

Spurred on by his interest in borrowed and original elements, the composer was beginning to adopt rather unusual types of variation technique into his writing. The left-hand vamp and marching ostinato accompaniment occur with increasing frequency in ragtime and other experimental works of this period: piano parts are full of them. They form the basis for a kind of "Maqam" technique of keyboard improvisation which was eventually to be transferred to manuscript paper. Commentators on Ives have not drawn parallels between his methods and that of the maqam in ethnomusicology, but a compositional-improvisational correspondence is unmistakable.

A.L.Lloyd has defined maqam as:-

> A kind of skeleton, or better, scaffolding of melody ((in Ives' case, rhythm and accompaniment as well)) which the musician, observing certain rules, is able to fill in for himself according to his fantasy and the mood of the moment.
>
> For westerners, the clearest most familiar example of the maqam principle is provided by the Blues, always the same yet always different, a well-known well-worn frame apt for any extemporization, . . . The Blues is an extreme example, but in some measure all folk tunes in their natural state, unfixed by print or other control, nourished by constant variation, having no single 'authentic' form but somewhat altering from singer to singer and even from verse to verse, are made on the maqam principle, with its balance of constraint with freedom, fixed model with fluid treatment, communal taste with individual fantasy, traditional constancy with novel creative moment, sameness with difference. 46

In contrast with traditional variation forms as used in the organ Variations on America and the lost Variations on Jerusalem the Golden (1889?), the basic folk definition given above concurs very well with Ives' absorption and use of head-motives from popular sources in his piano writing. Revivalist hymns like

There'll be no Dark Valley, _I hear Thy Welcome Voice_, _Bringing in the Sheaves_ and _Oh Happy Day_ and others presented in smaller fragments are all subjected to a constant process of metrical and motivic dislocation which heralds Ives' movement towards "new" concepts of organization. The reprocessed organ writing in the accompaniment to the _Third Violin Sonata_ and most of the _First Piano Sonata_ make free play with these hymns. Borrowed tunes whether sacred or secular were subject to radical reappraisals in the piano writing of this time. Their intrinsic appeal lay in the immediacy of the remembered head-motive which frequently formed the sole idée fixe for Ives' variation technique. Sometimes he got these tunes mixed up, especially if they possessed similarities in intervallic or modal shape.

Ives appears to have been fully conscious that his experience of popular idioms was to prove an important influence on his experimental piano style. He noted for instance, that the finale of his _Third Violin Sonata_ demonstrated a new variation concept:-

> The free fantasia is first. The working-out develops into the themes, rather than from them. The coda consists of the themes for the first time in their entirety and in conjunction. 47

A similar arrangement occurs in the _First Piano Sonata_ third movement where a rhapsodic treatment of melodic scraps from _What A Friend we have in Jesus_ (tune: _Erie_) and _Massa's in the Cold Ground_ (Foster) are often indissolubly mixed until full statements of the hymntune come together in the central section. The notion of variations trying to "find" their tune may have precedents in works like D'Indy's _Istar Variations_ (1896) or in the previously cited _Variations Symphoniques_ of Franck. But Ives' wholesale use of dismantled fragments and their treatment points much more to origins in ragtime improvisation where a simple melodic or rhythmic germ can set a maqam principle into motion.

The second movement of the violin sonata mentioned above, in contrast to its finale, portrays how Ives builds up his cellular materials by gradually extending an initial head-motive on Oh Happy Day via increasingly complex ragging treatments. Coming from a lost ragtime dance "written first for small theatre orchestra in 1902-1903"[48] which itself is derived from an abandoned organ toccata of c.1901, most of its opening forty bars are for piano solo and just play around with the rising $_{C}$ F^{GA} phrase of the hymn's opening. Ives takes the careful step of establishing a solid marching metre within the initial bars before subjecting materials to progressive melodic and rhythmic fragmentations. This 4/4 drum-corps style forms the base onto which he places ever-changing rhythmic and/or melodic variations treated in ragging "shifts." Accordingly as this movement unfolds, the composer rings the changes of a large number of motivic and riff-like permutations through a maqam process which theoretically at least could be infinite in duration. Only this rising four-note fragment is of any interest to him: it is reiterated in an upbeat context with "rag rhythms . . . used to vary the successive permutations of the opening figure."[49] And none is repeated literally. Soon these motivic variations depart from their initial Oh Happy Day pentatonic upbeat and take on a creative life of their own. Yet always present is the underlying march beat, constantly knocked out of kilter by the continual interruption of rhythmic "shifts." As this movement continues on its way, the march feeling becomes totally obscured amid a welter of ragging in both solo line and accompaniment. To all intents and purposes this maqam process in perpetual-variation form amounts to an Ivesian jam-session frozen into musical notation.

An awareness of these new possibilities forced Ives into the consideration of his compositions as unfolding processes of ongoing

intellectual creativity. The more he came to explore the experimental territories that he charted, the less he completed in terms of finished works. The Ragtime Dances are essentially incomplete studies on rhythmic and melodic ideas which grabbed his imagination at the time. In their discrete form it seems unlikely that he ever intended them to be frozen indefinitely on paper into complete musical statements. The very fact that many reappear in the later mature works often in greatly revised form, illustrates that Ives regarded them more as a repository or vade-mecum of rhythmic and melodic ideas for possible future use. The numerous drafts of the Concord Sonata and the four Emerson Transcriptions emphasize that he, like Joyce in Finnegans Wake and Boulez in his Third Piano Sonata, viewed such creations as "work in progress." This is borne out when he referred to the above transcriptions saying:-

> I find that I don't play or feel like playing this music even now in the same way each time.. . . I don't know as I ever shall write them out, as it may take away the daily pleasure of playing this music and seeing it grow and feeling that it is not finished. 50

j) "REACH-ME-DOWNS" & "READY-MADES"

When it came to playing ragtime styles in public, Ives knew all the tricks of the trade. The previous chapter has already dealt with the often curious experimental ideas and keyboard games practised before his encounter with more popular forms at Yale. These earlier idiosyncracies often blend with those picked up later. And as is usual with Ives it is frequently impossible to set a chronological course in order to explain when and where he amassed or invented such practices. Earlier motivic preferences have, for purposes of this research, been labelled as "figures of speech" or "figurenlehre" to highlight their similarities with Baroque methods of cellular rotation. But Ives' later absorption of ragtime elements into his writing together with the use of often strangely individual

pianistic performance habits requires another term so that some distinctions may be made. Again it is rarely possible to trace the origins of the often gestural, satirical or just experimental tricks used. But whether these were inherited as ragtime "ready-mades" or invented by the composer himself, the common phrase "reach-me-downs" will be used in order to distinguish them from the above terms.

Ives could only slowly assimilate all these many idiosyncracies into his notated compositions; for, working empirically, live experiment and self-criticism had to be put to the test before consolidation on paper. An exhaustive examination of the "reach-me-down" is beyond the scope and intention of this study. Accordingly, building upon vernacular procedures already covered, only one solo work will be chosen to illustrate a style of personal mannerisms which Ives continued to employ from the Ragtime Dances onwards.

Scherzo IVB from the First Piano Sonata[51] is a later revision of the 1902 Ragtime Dance No3 and shows the extent to which Ives changed and elaborated on his original material. The basic elements of rhythm and melody are common to both pieces, being derived from the head-motive of Bringing in the Sheaves. Small reiterated fragments from this hymn are progressively built up in similar fashion to the Third Violin Sonata movement mentioned above. They come together at the central presto when the complete tune is belted out in a truly Ivesian jam session. The scherzo closes with material from the head-motive of I hear Thy Welcome Voice. Contrasting with its earlier version, this sonata movement demonstrates extensively how Ives came to refashion his old ideas by adding to them "shifts", jacked-up dissonances and filled-out chords.

While the earlier dance version uses syncopations clearly related to common ragging techniques, the piano-solo offshoot in its

complexity and intentionally over-worked treatment cannot be examined just in terms of ragging alone. Here Ives attempts a fusion of borrowed popular elements together with his own experimental extensions of drum routines, drum handshapes and handspan chords: all are thrown in from an assembled vocabulary of "reach-me-downs."

As in all of Ives' ragtime-inspired pieces, he builds this one on a marching two-step. Opening with a riff rhythm between A and D♯ in the left hand for the first five bars (ex.2), it continues with an A to G ostinato soon afterwards (ex.3); this two-note oscillation forms a solid foundation for the superimposed melodic fragments in the right hand. Having established this, an obsessive three and four-note riff is introduced (in "blues" major-minor thirds?) in differing rhythmic and intervallic permutations between both hands (ex.4). Then the hymn's head-motive is introduced (ex.5), but dissolves into free vamping and punctuations from drum rhythms (ex.6, and ex.7 - a "stinger"). Much of this section, from the beginning to bar 109, is saturated with three to four-note riff treatments: the material is presented in all kinds of maqam-like guises to such an extent that the original hymn motive becomes completely submerged to be reprocessed amidst a welter of motivic activity and complex syncopation. Already it can be seen that Ives is extending borrowed and invented techniques via the careful exploitation of basic ostinati, riffs, motivic expansion and contraction, drumming interjections and throwing of the hands.

Prior to the central presto on Bringing in the Sheaves, Ives places a curious type of bridge or transition section between bars 97-108 (p.33,sys.4 onwards). This acts as a kind of extended drum break between the more important hymn materials. It resembles the introductory "roll-off" effects detailed in chapter two, though here handshape chords are replaced in each hand by reiterated octaves in a loose tritone relationship. The big "build-up" to

the next hymn entry is portrayed here by an increasingly frenetic ragging treatment. Again this demonstrates a kind of maqam technique where Ives, using a very limited number of ideas, rings the changes of every possible permutation before moving on to new ones for exploitation. Such a climax of emotional excitement and expectancy, underpinned by the "reach-me-down" of a constantly reiterated ragged ostinato, features frequently in many of the later piano works. The Concord Sonata contains many examples of these transitions often presented in ragged form, increasing speed and progressively widening range: page 64 (sys.2-4) of Thoreau is one of the best.

The reworking of this ragtime dance continues with additional placings of "reach-me-down" drumming, the quite arbitrary inclusion of extra notes to fill out triads (ex.8), dissonant sevenths and seconds derived from hand extensions (ex.9), fist chords (ex.10), transposed seconds and sevenths, and perfect octaves with intervals which are jacked-up or indeed down to make major sevenths and minor ninths. Again it is unfortunate that exact datings of this piano-solo version are not available, for it admirably demonstrates Ives' adept incorporation and translation of vernacular drumming features into his own keyboard figurations. Many experimental extensions of procedures already described can be seen in this movement. There is also evidence here that Ives may even be parodying his earlier ragtime-dance style by lampooning, what was in the original, an ordinary dominant-seventh upbeat group. Between bars 138-149 (p.35, sys.4 to p.36,sys.2) he transforms this into a preposterous anticipation of the final hymn entry. For eleven bars the listener is presented with, or rather bludgeoned by, a drumming succession of crossing "swipes" or "whipchords" with the left hand reaching over the right to strike clashing seconds and sevenths at the top of the piano: the right hand remains in middle range and belts out

added-note chords carrying remnants of the dominant chord of B♭. Ironically the final hymn enters in B-major! This gestural tour-de-force is Ives' way of raising two fingers to the traditional rules of dominant-seventh resolution. It is indeed a study in virtuosic scorn, either self-conceived or inspired by antics on the vaudeville stage. Here he penetrates the essence of trick pianism more closely than any other composer, and nearly twenty years earlier. But such devices constitute very much more than mere game-playing. Just taking the above dominant seventh as one example, we can see that such overhand treatments continued his obsession with keyboard problem-solving; for, in the same sonata, movement IVA "a study in 'Rag' for 5's, 3's & 2's together"[52] of around 1908 shows Ives to have elevated levels of trick pianism and their associated "reach-me-downs" to the state of compositional tools. Here, in a piece cobbled together from early ragtime experiments and later incorporated into the obbligato for Over the Pavements, Ives builds his style from drum routines (bb.1-6/p.28,sys.1-2), overhand "swipes" in dissonant intervals (bb.8-21/p.28,sys.3 to p.29,sys.3), right-hand white-note clusters versus left-hand black-note ostinati (bb.22-35/p.29,sys.4 to p.30,sys.4), hand reversals of similar material (bb.36-51/p.30,sys.4 to p.31,sys.1) and bitonal fragments (in the left hand) from the hymn I Hear Thy Welcome Voice (bb.48-51/p.31,sys.1). Played at speed such ragged complexities and irrational rhythms could rarely achieve accuracy in performance. Though clearly a study in conception, it is also designed in the terms of a physical and intellectual workout using Ives' collected "reach-me-downs" as musical sculptures from folk-inspired "ready-mades."

k) TRANSITIONS IN STYLE

The Ragtime Dances and their offshoots demonstrate Ives' willingness to subordinate the coherent quotation of borrowed tunes and hymns to the most complex experiments with ragging rhythms on paper. Already parts of the scherzos from the First Piano Sonata have been cited to illustrate this point. However, such rhythmic intricacies can hardly be used to prove that Ives was just aping the contemporary ragtime performances that he heard. Certainly he took these as a beginning, but his treatment of other musical parameters such as melody, texture, range and phrase structure belie their more "normal" use in vaudeville pianism at this time. For, Ives had started to write in his "newer" style with ragtime acting as a catalyst for further radical reorganizations of traditional musical tools.

Taking his use of drum chords for instance: while early ragged-style works like the Country Band March and Overture 1776 have obbligati using handshape clusters as onomatopoeic substitutes for real drumming, the Ragtime Dances extend and exploit such percussive effects into compositional "reach-me-downs" in their own right. the sonata Scherzo IVB is a typical example, where traditional routines rub shoulders with chord systems using added-note clusters. Similarly Scherzo IIB punningly entitled In the Inn (derived from Ragtime Dance No1) while starting with a usual piano-drum roll-off in the first eight bars, extends this habit throughout the whole movement with added-note clusters to accompany melodic fragments, or between these, punctuating the texture with iconoclastic crash-chords for fists (bb.78-80 & 101-3/p.17,sys.3 & p.18,sys.2).

The two obbligati from Central Park in the Dark (1906) place "old" and "new" treatments side by side. While piano 2 concerns itself with traditional-style drum clusters, piano 1 resembles a pianola banging out"Hello My Baby"in perpetual motion. However,

in the work's faster central section the composer presents his materials bitonally, with the song in right-hand G-major and left-hand F♯-major: quotations from this tune are interspersed by four-to-five-bar bridging passages again from Ragtime Dance No1 (viz.In the Inn bb.37-8). At bars 89-90 of the manuscript there is the indication "Keep up off beat as a Dr((um))" as the hands of piano 1 dance around in thirds. The subsidiary link occurs four times between repetitions of more important melodic materials, excepting the last, when a horse-drawn fire-engine runs down the street out of control.[53] This short bridge of invented rhythmic routines can be regarded as a "thinking" area where the piano virtuoso launches into a workout cadenza in order to impress his audience. Here the thirds are thrown around and ragged in the same way that an inventive drummer would improvise a "roll-off" or "break" before an entry of the main themes. This study in displaced thirds anticipates similar but more extended procedures in the later solo studies, especially numbers 18 and 23.

As a popular device, the riff is well known. The "12th Street Rag" of 1914 is a rare but famous example of a piece which elevates this most simple of motives into a compositional tool. Ten years earlier Ives did the same: much of In the Inn is based on major-minor "blues" thirds presented in note rotations and ragging permutations.[54] Obviously the listener's attention is directed towards rhythmic rather than melodic artifice in this work. But there are times when Ives is very much more systematic in his treatment of this "reach-me-down"; for, in a section marked meno mosso (bb.84-95/p.17,sys.4-end of sys.5) which again is subsidiary to the more melodic areas which surround it, he uses the riff in a most novel way. The left hand sets up a curiously three-legged march rhythm incorporating major-minor thirds(bb.84-5 thumb = $^{E\flat}D C\sharp$; fifth

finger = $^{E}D_{C}$); the right hand plays around with more handshape chords on ^{E}DC. There is little doubt that Ives experimented with these figurations at the piano before setting them down on paper. While this passage is dovetailed between more important melodic ones, it may well be that the composer was subconsciously thinking through the hymn Cleansing Fountain upon which much of this movement is based, and then borrowed the little motive mi-re-doh for some pianistic exploration. Likewise the note-cluster spelling BACH is treated as a ragged riff in the piu mosso closing section of the Three Page Sonata. The Concord Sonata continues this obsession with a motivic idée fixe; Ives' use of "Fate" from Beethoven's "Fifth" is the most recognisable example, though it could just as easily be a head-motive quotation from the hymn tunes Martyn or Missionary Chant. In fact both sonatas are flooded with small rhythmic and/or melodic riffs treated in a kaleidoscope of maqam possibilities. Sometimes these atomized fragments are formed into coherent borrowed tunes or invented melodies. At other times they are not, and their disjointed nature is maintained to form areas of non-developmental activity involving reiterations of short riffs and longer ostinati shared between the performer's hands.

1) NEW FORMS & MOTIVIC UNITIES

In time, Ives' assimilation of all these techniques led ultimately to a total breakdown of traditional concepts of phrasing within his "new" works: the reiterative ostinato foundation of the 1901 Largo has already been used to illustrate this point. But his adoption of the riff as a major constructional device in pieces like the Ragtime Dances means that there have to be new approaches offered in order to explain the psychological coherences behind his piano writing.

By now assymetrical treatments of rhythm had become a primary

feature of organisation. The working out of thematic material in a nineteenth-century sense was progressively abandoned. It was replaced by motivic expansions and contractions of melodic and rhythmic quotations, together with fragments and tricks initially derived from popular sources. Accordingly Ives forsook the essentially tonal principles of exposition, development and recapitulation and began to adopt a much freer and intuitive approach to musical form. He became absorbed with the element of process, whereby an often limited range of compositional variables was developed in maqam fashion: the First Piano Sonata scherzi show this concept taken to extremes of fragmentary compression. However, in the broader expanses of the Concord Sonata Ives is seen to spin out his musical quotations and treatments onto a much wider canvas; though even here his means of developing Beethoven's "Fate" motive or his own submissive "Human-Faith Melody"[55] owes little to earlier principles of formal layout.

Form in the Ivesian sense of an unfolding process of activity, falls into three broad categories. The first, a movement from simplicity to increasing complexity can for instance be seen to apply in The Alcotts from the Concord Sonata: here themes are progressively intermingled and developed in a variety of transformations until they are combined at the close. The second, already dealt with previously in a discussion on the final to the Third Violin Sonata also applies in Emerson: the unravelling of musical complexities blossoms finally into quite coherent thematic material. The third type is essentially non-developmental and uses Ives' maqam principle of perpetual variation. The First Piano Sonata scherzo IIB is by far the best example in his keyboard writing: here only minute rhythmic and melodic gestures are used in a totally fragmented ragging process which prevents any complete presentation of the two main hymntunes at the close of the movement;

nothing is resolved. There are however occasions when the composer chooses to mix the above categories by adopting a kind of arch or "bogen" shape. This occurs in the central movement to the above, where ambiguous thematic meanderings between What a Friend we have in Jesus and Massa's in the Cold Ground are temporarily resolved into a full statement of the hymn in the middle portion; then towards its close the movement subsides once more into ambiguity.

Ives' formal arrangements are rarely consistent. Every approach is totally original: the movements above do contain some sense of intellectual coherence even though at first hearing their progress might sound through-composed. Yet in the sonatas thematic threads actually exist between movements, despite the fact that Ives did not assemble these into completed works until well after the conception of their separate sections. For example the gestation of the First Piano Sonata spans the period 1902-1909, only coming together in 1910. However, in addition to extensive cross-quotations here from many hymntunes Ives, before or after each movement's completion, chose to bind them all together by the use of a major second to minor third motive. Lou Harrison observes this feature as:-

> born of the baroque 'pathetic affection', subject of all compositions on the name of Bach, and later than in this sonata, the subject of the first piece in Schoenberg's Five Piano Pieces Op.23. 56

While Schoenberg and contemporaries built up an aphoristic atonal style from small rotated motives which eventually evolved into serial systems, Ives' own thematic treatments were to go full circle. Having started by constructing a new style from borrowed melodic fragments related to nineteenth-century musics, he progressively became involved with the intricate patterning of ragtime riffs and shifts: this led to the eventual breakdown of traditional phrase structuring and its replacement with a language of motivic

cells, "figurenlehre" and popular pianistic "reach-me-downs" far removed from the European background of Schoenberg. Despite this there are times in Ives' music when both the academic and popular are mixed. This happens for instance in the way that he treats the BACH motive in his Three Page Sonata which occurs in an astonishing variety of rhythmic, intervallic and serialized permutations throughout the whole work: it is rotated in Baroque-type cells; treated like a four-note ragtime riff; diatonically adjusted to incorporate a phrase from Lowry's hymn I Need Thee Every Hour[57] or from the patriotic tune America.[58] These explorations are much more searching than those used in works like Schoenberg's Op.19,no.1; for, Ives is not only employing similar but freer processes of note rotation, he is drawing from a brantub of wide musical cultures and associative ideas as well.

m) MATURE STYLE — THE THREE PAGE SONATA

The Three Page Sonata is Ives' first mature work for solo piano. Not only is it the culmination of all his experiments with the musical constituents of pitch, harmony, rhythm, texture, dynamic levels etc., up to the date of its completion, but also demonstrates the compositional opportunities afforded by his knowledge of a wide number of contrasted performing traditions. By 1905 he had achieved a successful synthesis of ragging and piano-drumming elements into his evolving style, and this work's eclectic approach can be regarded as a microcosm of what was to occur in the later piano writing.

While its first movement allegro moderato is primarily concerned with transformations of BACH, it is also replete with precise metrical constructions which are strongly related to those used in the later chamber works. At present, confining the discussion to rhythmic features concerned with ragging and slower processes of cross-patterning, the central andante-adagio movement shows Ives' return to the

meandering left-hand ostinati of his Largo. Here though, he has extended the principle to that of arpeggiated patterns presented in subtle cross-rhythm permutations.[59] This marks a return to pre-ragtime mensural experiments. The Allegro-march time finale places complex syncopations over a ragging two-step foundation: straggling beats are added or subtracted from its forward impetus. The piu mosso rondos have the flavour of barrel-house jangling[60] and happen to correspond with similar bars from the Piano Trio scherzo.[61] This section illustrates the composer's genius at transforming the BACH-motive into a monotonous riff which possibly resembles "Ta-ra-ra-boom-di-ay" or some other rowdy hit tune of the period. Again it is impossible to distinguish ragging and drumming handshapes in this movement: by now Ives had effected a union of the two into an hermetic whole.

The eclectic sources and treatments used in this work are nevertheless carefully structured; rather more so than in most of the later piano writing. After all, the piece was "made mostly as a joke to knock the mollycoddles out of their boxes and to kick out the softy ears!"[63] Possibly in conceiving this mini-sonata Ives thought that the use of a figurenlehre-like BACH might in his own compositional mind give it some academic credibility; again he could treat the many variants of this motive as an essay in problem-solving both at the keyboard and on paper. Even the layout of its three original large manuscript pages, one for each movement, shows the composer to be toying with traditional ways of overall structure: the first, with its superfluous exposition repeat (—"back to 1st Theme — all nice Sonatas must have 1st Theme"—) occurring between material which in style is atonal and through-composed; the second's bitonal treatments of Westminster Chimes over a weird Alberti bass; or the rondo-like third, whose ragging

and drum clusters are called to order at the "Coda" by a consonant C-major chord. Yet in a work of such iconoclasm and contrasts Ives' "take-off of a sonata"[63] required a sectional presentation in order that these different approaches be made clear.

An exhaustive analysis of the Three Page Sonata would be too lengthy for the present discussion; and as its opening movement is by far the most complex in terms of motivic, rhythmic and textural treatments, this has been chosen as Ives' most adventurous piano writing for the period. The table overleaf lists and identifies the composer's handling of his musical parameters without attempting to cover every possible facet. References are from the score contained in the 1971 printing of "Charles E. Ives — Five Piano Pieces" which was originally edited by Henry Cowell in 1949. Such a choice might seem odd when the recent and certainly more scholarly 1975 edition by John Kirkpatrick is available. Unfortunately he has chosen to correct Ives' "non-conformist spellings" which apparently "offer unreasonable hindrances to memorizing"[64] and partition much of this movement's unbarred polyphonic progress. As a result he has prevented any performer's free interpretation of phrasing ambiguities offered by the composer, and on a psycho-acoustic level, misrepresented Ives' own belief in the vibrational differences of the comma between B♯/C and other enharmonic intervals.

At first hearing Ives' opening Allegro moderato sounds like a mass of rising and falling atonal phrases progressing from one to the next in loosely complementary fashion. Upon repetition it might be possible to pick out variants of BACH or possibly disembodied melodic and/or rhythmic fragments from America or from Beethoven's "Fate"; now and again little bugle-fanfare motives might be heard to rise and subside once more into the overall atonal texture. Obviously repeated listenings will breed increasing familiarity

TABLE (To show varying treatments of parameters.)

THE THREE PAGE SONATA — First movement, Allegro moderato.

(Ed. by Cowell 1949: contained in "Ives-Five Piano Pieces"pp.18-19).

As this movement is unbarred, areas are identified as follows:-
n/n/n = Page no./ System no./ no. of crotchet beats into the system.
RH = right hand; LH = left hand; (H) = handshape.

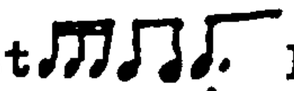
1)Phrasing: Expansive and rhapsodic; rising and falling in loosely complementary effect.
18/1/whole system↘↗;18/4/3-10 arch in RH; 19/1/4 contrary motion to end.

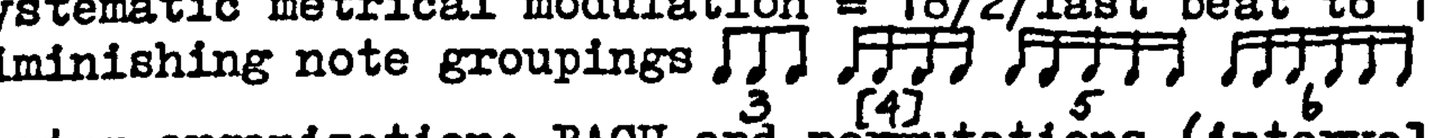
2)Texture: Generally dense; areas which rise or plunge in parallel (H) or are consistent in pitch range viz. 18/3/1-3, 18/2/2-5; 19/2/2-6.
contrary motions viz. 18/4/3-9, 19/1/4-6, 19/3/1-3.
consistent in (H) pitch areas viz. 19/2/2½-6.

3)Harmony: Atonal no sense of key centre; chromatic

4)Chords/Intervals: True drum handshapes = none; derived (H) = throughout.
RH derived (H)↗↘ viz.19/3/3-4; (H) 3rds.viz.18/4/8 LH,last quaver.
Static (H) viz.19/2/2-5 and also RH of 18/4/5-11.

5)Melody: Based on the note-cell BACH with intervallic transformations and variable mix of diatonic intervals and rotations. Other cells derived from quotations mentioned below.
19/1/7 = BACH as upward arpeggio and as (H) upbeat at 19/3/3-4;
19/3/last 2 beats = RH (H) treatments.

6)Quotes: Motivic cell BACH; tune "America"18/4/3-5,19/2/first  RH.
Beethoven's "Fate" viz.RH at 19/2/2-4;LH19/2/6-7(Melodies obscured).
"Taps" in 4ths RH 18/2/6-7; also top voice 19/2/2½-6 (sic?).

7)Rhythm: Generally a crotchet pulse throughout, but often syncopated in order to displace textures between hands; exhaustive divisions of crotchets; frequent play of contrasts between hands as if to give each expressly different rhythmic groupings.
Systematic metrical modulation = 18/2/last beat to 18/3/1-3 in the diminishing note groupings 

8)System organization: BACH and permutations (intervallic,pitch,serial).
Metrical modulation see 7) above;
12-note permutations/serialized at 18/3/2-3(viz."In Re . . ." as well).

9)Form: Tendency to be through-composed, though there are repetitions of inversion HCAB as a kind of exposition repeat at 18/4/3 onwards. At times there are textural repetitions, though with changes of chordal material.

with such references to borrowed quotations: all is presented and indeed eventually perceived as a flowing stream of musical consciousness. Yet this does not explain how Ives might offer both listener and performer some way of understanding the movement as it unfolds. One loosely traditional factor here is the composer's use of predominantly nineteenth-century phrase gestures: like his contemporary Schoenberg, Ives adopts a relatively symmetrical sense of rise and fall in pitch range corresponding with natural psychological processes of tension followed by resolution. These waves of sound with roots in the traditions of Wagner and especially Brahms are put to use by both later composers. In addition, the kinds of motivic rotations, their exploration via expansion and contraction occurring in Schoenberg's Opp. 11 and 19 piano pieces and in Ives' own mini-sonata movement, contribute to the coherence of larger phrase structures. Continuing comparisons: it is also possible to note similarities in the way that both make use of free handshape gestures on the keyboard. While for instance Schoenberg's Op.19 no.3 adopts consistently atonal spans which frequently embrace dissonant ninth and seventh intervals with notes added inbetween by the middle fingers of the hand, Ives is much more arbitrary in his chord treatments: often he places consonant thirds and sixths alongsidehis own dissonant drumshapes, thereby causing some sense of aural confusion as to whether his musical explorations look back into the tonal past or forwards into a somewhat chaotic tonal-atonal future. Indeed it is his use here of frequent consonances within predominantly atonal textures that tease the listener's perception. Historical perspective often determines understanding: we listen with our memories.

It is Ives' mixing of musical syntax which makes his language so different from that of his nearest American contemporary Carl Ruggles, whose own piano Evocations (1937-45) is the most proximate

in atonal style. He too constructs material from waves of sound expressed in phrasings made from small rotated cells: these interlock, forming longer lines which expand and contract in neo-romantic fashion. Yet while Ruggles strictly adheres to the use of dissonant handshape chords whose consistent atonality sounds palatably modern, Ives' own uniquely wider terms of borrowed and invented sources coupled with his own empirical discoveries can often be disquieting at first hearing.

In the opening of the Three Page Sonata the composer's reinstatement of long romantic phrases, after having spent much time in previous writing experimenting with short riffs, shows him to have fashioned new means of construction from what might appear to be conflicting academic and popular musical sources. His use of the crotchet beat as the only metrical point of reference here, though in slowed down form, harks back to the constantly reiterated footfalls in the ragtime scherzi mentioned earlier; as do the constantly rotated permutations of Ives' riff-like BACH. But in this mature writing important organizations of texture take much more precedence than rhythmic innovation. Both phrasing and pitch treatments have similarities with those appearing in Emerson whose own epical opening portrays a sense of expectancy with its use of palindromic textures moving outward from the keyboard's central point; then both hands plunge down before the first announcement of "Fate" at the end of the system. Ives' mini-sonata can be seen to begin with similar gestural devices: the initial BACH-motive pitches in both hands, only to rise again in the right prior to the following phrase which starts in the second system. This is common in more romantically inclined areas of Ives' style. Often, as in the outer movements of the First Piano Sonata, there are sections using this process of emotional rising and plunging which are segregated

by texturally static "thinking" passages. Such contrasts can be seen in the second system of the mini-sonata, where Ives plays around with fanfare motives in fourths alongside his BACH riff in alto range: the texture is relatively consistent within the limited pitch areas chosen for each of the polyphonic strands as they progress in loosely similar motion. Only a reannouncement of the original motive at the bottom of the page, this time in retrograde HCAB and resembling the opening of the tune America, heralds Ives' return to his palindromic treatment of this opening theme.

The ebb and flow of textures, coupled with the composer's intuitive choice of expanding and contracting pitch areas conveyed by handshape chords can be seen to correspond with the structural upbeats and downbeats used in tonal works like the Third Symphony (1904) of the same period: a score which also makes full play with borrowed hymntune fragments. Accordingly, whether Ives chooses to write in the progressive tonality of the above symphony, in a kind of craggy atonality as expressed via the Browning Overture, or in the incredibly mixed syntactic styles of the piano sonatas, traditional Romantic gesturing is rarely far away. The opening of the Three Page Sonata clearly demonstrates this debt, while those passages that follow, as already stated, show rather more experimental treatments of parameters. This whole work is significant: it emphasizes Ives' assimilation of earlier ragtime explorations and his journey towards a much wider and more sophisticated choice of procedures. Not only do these encompass new and totally innovative ways of perspective, but they also record a variety of improvisational approaches set down on paper by the composer.

This chapter began with an investigation into the kinds of popular music and performing traditions that so fascinated Ives. It has been shown how he borrowed from these sources in order to

begin new methods of piano composition: those which embraced and embodied a constant striving for factors of evolution in artistic creativity. Ragtime was the catalyst for Ives' change in attitude. By dint of its inspiration and its freedom from cultural restraints, he could borrow all kinds of "reach-me-downs" and use them towards a reappraisal of the musical parameters. He had started by building a new language out of juvenile sketches and burlesques; but the advent of ragtime as a national obsession in American popular culture had brought to the fore a "set or series of colloquialisms"[65] which could be applied to his own piano writing. Well aware that "every language is but the evolution of slang"[66] he also recognized that "Ragtime has its possibilities"[67] for the creation of a uniquely evolving style. This new form, an essentially public expression of improvised music-making, added impetus to Ives' already experimental viewpoint. For him, the creator, it was "one of nature's ways of giving art raw material."[68]

n) SUMMARY

The turn-of-the-century period was a watershed in Ives' creative development. Having spent an apprenticeship in the learning of late Romantic compositional procedures, his increasing exposure to the kinds of vernacular traits and performance practices inherent in folk styles that he had loved since a boy, made him choose to weld these peculiar features into a revolutionary expression of his own. A departure from the constraints of academic composition as laid down at Yale meant that he could draw from a vast repository of classical and folk styles as inspiration for his experiments. Participation in the performance of vaudeville and band music during and after his university years reacquainted him with the universal habit of "ragging" musical materials in order to characterize a truly personal

interpretation. Increasingly scores written during these years paved the way for a freer approach to the conception of a musical work. Ives' experience as a popular pianist meant that he could inject impromptu performance mannerisms into serious piano compositions. His exploration of a limited range of rhythmic ideas found expression in the Ragtime Dances where a wide selection of metrical possibilities was tried out. Borrowed quotations, in varying states of fragmentation began to be superimposed upon these experiments with "shifts." As a result, new melodic types soon appeared. In addition the composer developed a technique of perpetual variation which put these derived structures through a variety of parametric permutations. Having completed most of his ragtime experiments by 1905, Ives had formulated an original style drawing upon an increasingly hybrid mixture of his own aural and performing experiences. The Three Page Sonata is the first mature expression of this syntactic pluralism: within its few pages it is possible to trace the broad inspirations in the later studies and collected movements of the piano sonatas.

References.

1. Chase, America's Music, pp.443-4
2. Ibid, p.445.
3. Article "Ragtime" in Grove's Dictionary of Music and Musicians (6th edn., edited by Sadie 1980) Volume 15, p.538.
4. Also to appear later in piano study #18.
5. See orchestral score (1955 Edn.) p.419.
6. Blesh and Janis, They All Played Ragtime, pp.137-8.
7. Jasen and Tichenor, Rags and Ragtime, pp.80-1.
8. Blesh, op.cit., p.138.
9. Tichenor, Ragtime Rarities, Dover Publications Inc.
10. Blesh, op.cit., pp.138-9.
11. Ibid., p.141.
12. Ives, Memos, p.56.
13. Hitchcock, Music in the United States, p.109.
14. Ives, op.cit., p.281.
15. Elkus, Charles Ives and the American Band Tradition, p.18.
16. Blesh, op.cit., p.151.
17. Ibid.
18. Ives, op.cit., p.263.
19. New World Records, no.282.
20. See also the second movements of the Piano Trio and Second Quartet.
21. Tick, "Ragtime and the Music of Charles Ives"; article in Current Musicology no.18. (1974).
22. Chase, op.cit., pp.440-1.
23. Ives, op.cit., p.119
24. Ibid., p.98.
25. Ibid., p.70,n.2.
26. Notes to the published score of A Theatre Set.
27. Ives, op.cit., Appendix no.17.
28. Available on record set CBS M4 32504.
29. See John Kirkpatrick's notes to record set CBS M4 32504.
30. Perlis, Charles Ives Remembered, p.173.
31. Ives, op.cit., p.142.
32. Perlis, op.cit., p.205.
33. Ibid., p.220.
34. Ibid., p.82.
35. Ibid.
36. Ibid., p.171.

37. Ibid., p.224.
37a. Hitchcock, Ives, p.49,n.3.
38. Ibid., p.225.
39. Ibid., p.135.
40. Ibid., p.218.
41. From a lost anthem of 1898 - possibly conceived in Oct.1900.
42. Cowell and Cowell, Charles Ives and His Music, p.167.
43. John Kirkpatrick, A Temporary Mimeographed Catalogue of the Music Manuscripts and Related Materials of Charles Edward Ives . . . p.40.
44. Ragtime Dances photostat copies of the original manuscripts. (n4873-4,f2450-1); (f3742-6); (n4891,f2461); (n4892-8,f2475-80 and 2446)
45. Tick, op.cit.
46. Lloyd, Folk Song in England, p.69.
47. Ives, op.cit., p.69,n.1.
48. Kirkpatrick Catalogue, p.80
49. Tick, op.cit., p.107.
50. Ives, op.cit., p.80.
51. See 1979 revised edition, pp.31-6.
52. Kirkpatrick Catalogue, p.85.
53. Score of Central Park . . . bar 117.
54. See also IVB, bb.69-70 and 84-7.
55. 2nd Edition p.5. (beginning of system 1).
56. Preface to printed score.
57. Cowell edition p.20,sys.1.
58. Ibid., p.18,sys.4, crotchet beat 3 onwards.
59. Hitchcock, Ives, pp.44-7.
60. Cowell edition, finale pp.23-40.
61. Piano Trio second movement, bb.93-120; ms: "New Haven '04."
62. John Kirkpatrick notes to 1975 piano score.
63. Ibid.
64. John Kirkpatrick notes to 1975 piano score.
65. Ives, Essays Before a Sonata, p.94.
66. Ibid.
67. Ibid.
68. Ibid.

CHAPTER FOUR

NEW ENGLAND VOCAL TRADITIONS:

FUSIONS WITH FOLK PERFORMANCE PRACTICE

a) INTRODUCTION

New England vocal traditions date back to the very beginnings of American settlement. They were perpetuated whenever opportunities for informal music-making of a sacred or secular kind presented themselves. Using the composer's recollections of local singing styles, an appraisal will be made of their contributions towards his new language of piano writing. In contrast with the previous chapter's examination of rhythmic influences, attention here will be drawn to Ives' acute awareness of often subtle embellishments occurring in massed and solo folk performances. His observations of a wide number of variants applied in one or more melodically related tunes will be illustrated in the thesis appendix which is intended as an accompaniment to this chapter. There such elements are analyzed with reference to the central slow movement of the First Piano Sonata.

b) THE TRANSCENDENTAL BACKGROUND

Ives grew up in a social environment where ironically the rigours and excesses of modern industrial expansion were juxtaposed with New England's strictly Puritan moral codes. Spiritually and intellectually his own sympathies lay with the mid-nineteenth-century Transcendentalist philosophers. Eventually these beliefs culminated into the Concord Sonata where the thoughts and life styles of such heros as Emerson, Hawthorne, the Alcott family and Thoreau were substantiated into musical terms. Thus it would seem logical to assume

that Ives delved also into the literature of other Transcendentalists of the period. Yet there is no written evidence in his Memos to support this possibility, even though Emerson's friend John Sullivan Dwight in "Dwight's Journal of Music" wrote extensively on topics relating to musical aesthetics. While the composer may well have read such criticism, Dwight's strongly partisan attitude towards the supremacy of cultured art in the European tradition would have incurred Ives' wrath: he railed against all things "German."

As early as 1841 Dwight, intending to redefine the terms of "sacred" and "secular" in creative activity,

> . . . contended that it was the greatness of music that made it sacred, not its association with religious words, and that great music was the 'language' of natural religion. 1

He cited Beethoven as an example of such greatness. Later in 1853, an attack was launched on the vernacular tradition as represented by the songs of Stephen Foster:-

> We wish to say that such tunes . . . become catching, idle habits, and are not popular in the sense of musically inspiring, but that such and such and such a melody breaks out every now and then, like a morbid irritation of the skin. 2

While Ives believed in the aesthetic of natural religion as expressed by the Transcendentalists, his attitude towards Dwight's particular categorizations would have been one of unremitting repugnance. In contrast, the composer's Essays Before A Sonata stress the sacred message of all musics provided that they were conceived and executed with the highest spiritual intentions, and performed with both spontaneity and affection. Philosophically he saw two creative polarities

> . . . composed of what may be called reality, quality, spirit, or substance against the lower value of form, quantity, or manner.. . . Of these terms, "substance" seems to us the most appropriate, cogent, and comprehensive for the higher, and "manner" for the under-value. 3

Ives' belief in the creative dominance of "substance" over "manner", despite the fact that it "is too indefinite to analyse in more specific terms"[4] puts the intellectual onus on the perceiver of a creative art work, whereby "intuitions (artistic or not?) will sense it—process, unknown."[5] Using the indefinable power of intuition—a uniquely personal state of mind, Ives said:-

> At any rate, we are going to be arbitrary enough to claim, with no definite qualification, that substance can be expressed in music, and that it is the only valuable thing in it; and, moreover, that in two separate pieces of music in which the notes are almost identical, one can be of substance with little manner, and the other can be of manner with little substance. Substance has something to do with character. Manner has nothing to do with it. The substance of a tune comes from somewhere near the soul, and the manner comes from—God knows where. 6

Translating this into colloquial terms for Ives the ragtime "Dasher", the old tag, "It don't mean a thing, if it ain't got dat swing!" would hardly seem inappropriate.

Thus, from his point of view, polemical arguments as to the hierarchical importance of cultured over vernacular types of music and performance were irrelevant. This was borne out by his enthusiastic adoption of composing methods which attempted to fuse apparently disparate styles together into one piece. His assimilation and use of often conflicting traditions goes hand-in-hand with a multiplicity of aesthetic concepts and associations which are frequently too personal and diffuse to fathom. Ives' faith in all aspects of human endeavour where necessity is the mother of invention embraced both the successes and failures of existence: stern Puritan ethic and Social Darwinism are tempered via his Transcendental optimism in the joy of music-making for its own sake.

So far little explanation has been given for the position and importance of apparently purposeless features in his piano writing: those variations marking both successes and failures in personal approach and performance realization. Ives ponders on this

philosophical problem:-

> To think hard and deeply and to say what is thought regardless of the consequences may produce a first impression either of great translucence or of great muddiness — but in the latter there may be hidden possibilities . . . The mud may be a form of sincerity which demands that the heart be translated rather than handed around through the pit. A clearer scoring might have lowered the thought. 7

Here is an aesthetic justification for his inclusion of redundant materials together with the often embarrassing possibilities of mistakes in performance — "infra dig." in concert, "a bum note" anywhere else. Accordingly Ives emphasizes the superiority of "substance" over "manner" by including the happenstance and serendipity of performance error as an intrinsic part of compositional process. The "substance" of music-making, its mistakes crowned with the necessity of good intentions, are all grist to his creative mill. Interpretation lies with the listener.

> Expression, to a great extent, is a matter of terms, and terms are anyone's. The meaning of "God" may have a billion interpretations if there be that many souls in the world. 8

c) NEW ENGLAND HYMNODY

Ives' Memos contain many descriptions of favourite hymns sung both in church and outside at camp meetings. They were an obligatory part of family worship, and all pianists however inexperienced were expected to play them. Many of these tunes though printed in customary hymn collections of the period were transmitted via an aural tradition strongly shaped by the musical whims and preferences of the settlers, who initially at least, came from the British Isles. Towards the end of the nineteenth century New England had experienced three hundred years of folk and popular music-making with a result that the whole of the eastern seaboard had become permeated with imported vocal styles of English folksong, mixed with song and dance from Gaelic traditions. These, together with the negro spiritual and later influences from eighteenth-century ballad

opera, further helped to modify and transmute the ongoing process of hymn writing and performance in New England. Before discussing the way that Ives experienced and drew from elements of hymn-singing style for his piano writing, it is necessary to give an outline of the types involved.

The earliest imported hymnody of Non-Conformist settlers was based upon metrical psalmody relating back to the sixteenth-century styles of Calvin and his disciples. The New England type appears to have been of predominately Scottish and Irish Gaelic variety, although sung in English. Invariably early congregations were mostly illiterate and their repertory confined to a mere handful of monodic chants: of these Amazing Grace and the Old Hundredth have survived to this day but generally in harmonized versions. Such tunes were sung at extremely slow pace, and often "lined out" at the beginning of each phrase by the presiding precentor. While conceived in very simple terms, through the passage of time all these tunes underwent the inevitable process of heavy ornamentation and discant improvisation above and below the main melody; parallels here may be drawn with the similar addition of florid counter-melodies to plainsong chants in the Middle Ages. Most contemporary commentators on New England developments say that this style of hymn and folk performance had died out by the middle of the nineteenth century. But it seems likely that in the 80's and 90's both Ives and his father heard and took part in gatherings where this archaic style, "The Old Way" was still sung and enjoyed.

The Fuging Tune again has connections with earlier forms of psalmody being

> . . . the end-product of a short-lived 18th-century union between metrical psalmody and contrapuntal technique. Both sections of the fuging psalm-tune — the psalm-tune itself and the fuge — had long co-existed as independent entities before they briefly coalesced, . . . 9

These settings with displaced entries in one or more parts were soon taken over by native American composers; William Billings is probably the best known. It must be stressed that though a crude kind of imitation took place in these hymns, they were in no way related to fugal form but were nearer to improvised folk polyphony. Wilfrid Mellers has given one of the best definitions of this style:-

> The metrical psalms and hymns were set in simple homophony, or as "fuguing tunes" usually in two sections—the first being in the customary triadic homophony with occasional passing notes, the second being in fugato of a rudimentary type derived directly from English and Scottish psalter style of the seventeenth century. often the homophonic hymn is in triple time, the fugato in duple. 10

Referring to transitional homophonic settings which evolved from the monodic hymns of "The Old Way" and moved into "fuging" types, Mellers makes a major point that:-

> The half-intuitive composers, thinking modally, like folk-singers, did not know how to achieve the highly civilized equilibrium between horizontal polyphony and vertical homophony that characterized their European forebears. Yet their rawness was also their authenticity. Their "mistakes" in harmony and part-writing could be at times inspired; indeed, they were not mistakes at all, since they were a creative manifestation of their identities. 11

Later such rawness fired Ives' own musical imagination. And it is not unreasonable to assume that he may have tried out some of these old harmonizations on his Danbury or New York choir members for fun. Certainly his experimental psalm settings contain staggered entries which might relive old "fuging" traditions, though the dissonances employed are often taken a stage further.[12]

Until 1800 folk inspired harmonies and personalized methods of performance still held sway in the composition of American hymns. Most of their melodic lines were generally modal in character, though subject to unwritten laws resembling a kind of erratic musica ficta. Increasingly this

> . . . modalism sometimes came into conflict with a fumbling attempt to accommodate it to the principles of eighteenth-century tonality. 13

Eventually diatonic tonality took over owing to the progressive introduction of singing schools in New England from the early nineteenth century onwards; though this does not necessarily imply that old performance habits were abandoned altogether. New hymn writers emerged like William Hastings and Lowell Mason: they and others fulfilled a self-appointed task to do away with a religious expression which was so strongly rooted in the apparent cacophonies of folk vocalization and back-woodsman harmonies. Ultimately they succeeded, by issuing hymn collections which drew upon the best of more recent American, English and German-speaking developments in art music. Ives' favourites such as the tunes Bethany (Mason 1859 - "Nearer My God to Thee") and also Missionary Chant (Zeuner 1832 - "Ye Christian Heralds") which both appear in his Concord Sonata are fully representative of this simple diatonic type.

The gradual introduction of popular elements into the harmony and general style of hymns from mid-century onwards reflects the increasing influence that secular and dance forms were to have on the religious life of average Americans. In his attendance at church services and camp meetings the young Ives would have heard a very wide range of spiritual folksongs. H.Wiley Hitchcock defines these as

> . . . religious songs set to folk melodies, whether secular song melodies, patriotic airs, or popular dance tunes. 14

He continues by distinguishing three types: "religious ballads, folk hymns, and revival spiritual songs."[15] Countless numbers were written in these loosely defined genres and they usually reflect influences derived from the marching song, negro spiritual, white spirituals and devotional songs of Foster, Work and Root. Such types, together with the "chromatically engorged harmony and sentimental texts"[16] of Sankey-Moody hymns, had all but submerged

early styles of hymnody in New England by the beginning of the twentieth century. Nevertheless, old habits of performance practice seem to have remained well into Ives' Danbury childhood. His compositional interests within the piano writing were to reflect this nostalgia for a lost musical past.

d) FOLK HETEROPHONY

Ives' attendance at camp meetings with his father acting as conductor and leading instrumentalist is recorded in innovative musical terms throughout a host of compositions, whether in parts of the First Piano Sonata, the violin sonatas or indeed the later orchestral pieces: rather more subtle infusions occur within the textures of the Concord Sonata. The fervency of these gatherings and Ives' own obvious enthusiasm for them is conveyed in both the titles and treatments of hymntunes in works like the Third Symphony - "The Camp Meeting" and Fourth Violin Sonata - "Children's Day at the Camp Meeting", to name but a couple. He had a particular fascination for the nature of personalized performances and kinds of sonic effects issuing from them:-

> I remember how the great waves of sound used to come through the trees—when things like Beulah Land, Woodworth, Nearer My God To Thee, The Shining Shore, Nettleton, In The Sweet Bye And Bye and the like were sung by thousands of "let out" souls. The music notes and words on paper were about as much like what they "were" (at those moments) as the monogram on a man's necktie may be like his face. Father . . . would always encourage the people to sing their own way. Most of them knew the words and music (theirs) by heart, and sang it that way. If they threw the poet or the composer around a bit, so much the better for the poetry and the music. There was power and exaltation in these great conclaves of sound from humanity. 17

Most of the above hymns were written around the Civil-War period. All are melodically simple, with the exception of Beulah Land which includes chromatic auxiliary notes, and built upon harmonic foundations of the three primary triads. Some are through-composed; others follow later developments with verse and refrain.

Their rudimentary construction made it much easier for each "let out" soul to memorize the tune or its sparse harmonic support, so that he could add his own melodic and rhythmic variants during massed singing. Ives' approval that, "if they threw the poet or the composer around a bit . . ." is a clear recognition of the freedom of vocal improvisation on such occasions. Both he and his father would have regarded these hymns as good contemporary examples of style; and yet the above description shows that singers were quite happy to continue performing them with as much personal licence as they did the Calvinist monodies of "The Old Way."

The composer's experience of what is colloquially called "surge-singing" or in ethnomusicological parlance "folk heterophony", is now a rarity in English-speaking Christian communities with the exception of a few Baptist pockets in Virginia and Kentucky: nowadays obligatory keyboard accompaniments effectively prevent any personal vocal idiosyncracies in performance. However, this tradition does survive within Gaelic-speaking parts of the Scottish Western Isles where many ancient hymns are still sung unaccompanied in "The Old Way." Conversely, most folk-orientated congregations in the American southern states have updated their repertory to include very personal renderings of harmonizations in the later "fuging-tune" traditions. In England the only recent parallel until the 1960's was the crowd surge-singing of "Abide With Me" at soccer matches conducted by a man in a white coat; a surviving remnant of pre-war community singing at Wembley Stadium. Even when listening to tunes and chants on modern football terraces, often one person's vocalizing will initiate a cumulative effect throughout the members of one stand; the resulting sound mass, generally of slow, harmonically and rhythmically simple material rises or falls to a natural crowd tessitura. Ives mentions this in his "great conclaves of sound,"

> . . . the way, at an outdoor meeting . . . with no instrumental accompaniment except a cornet . . . the fervor of the feeling would at times, especially on reaching the Chorus of many of those hymns, throw the key higher, sometimes a whole tone up—though Father used to say it ((was)) more often about a quarter tone up—and . . . Father had a sliding cornet made so that he could rise with them and not keep them down. 18

Here a modern correspondence exists within realms of popular song and pop music, where successive verses are raised in pitch (by semitone or tone) in order to build up the tension; evangelical choruses are also given the same treatment. There is no doubt that Ives savoured the slower styles of "surge-singing"; for, he launched a diatribe against more cultured performances of his musical favourites with:-

> I've heard the same hymns played by nice celebrated organists and sung by highly-known singers in beautifully upholstered churches, and in the process everything in the music was emasculated—precise (usually too fast) even time . . . 19

These traditions were a major contribution towards the way that Ives conceived parameters of texture and dynamic within his mature compositions. Borrowing from crowd heterophony, he became aware that corresponding interpenetrations could be achieved both in spatial treatments of instrumental spread, and with careful placings of contrasted dynamic blocks in a concept of aural depth. This is most realistically imitated within the larger orchestral works where three-dimensional effects in placings and volume are possible. However, at a simplified level it also occurs in parts of the Concord Sonata's Hawthorne movement: here noisy whirlwinds of runs or fist clusters give way to the "still small voice" of a hymntune quotation which rises from pedalled overtones above all this frenetic activity. [20] This, with related features in Ives' other sonata will be dealt with in detail during the chapter which follows.

Despite the fact that the composer's piano writing uses hymn

materials placed in a number of sacred and secular musical contexts, there is no doubt that he regarded such tunes with as much reverence as his forebears did in the seventeenth century. While their psalm chants were rarely more than half-a-dozen, nevertheless:-

> This small inherited repertory of tunes provided a firm foundation for the improvisations and embellishments of the folk style. There was a core of unity with scope for endless variety. (Compare the core of "stock" tunes used in hot jazz improvisation, as another illustration of the same principle). 21

Ives was more fortunate: he could draw from scores of remembered hymns for his own ideas.

Besides his observations of individual performances of camp meeters, he was also deeply moved by the strongly spiritual nature of such massed community singing. Curt Sachs has recognized this as a corporate need in other world societies where similar types of folk heterophony are practiced:-

> Unconscious heterophony is, psychologically speaking, a non-polyphonic type of music. The performers as well as the listeners accept it as homophonic; they ignore occurring consonances and dissonances and even tolerate, as unimportant, careless entries, retarded conclusions, and the haphazard lengthening or shortening of notes. Any congregational participation in modern church music provides examples, even when the organ and a professional choir support the singers. Such anarchic singing would be unbearable if intention and attention were focused on satisfactory sense perception, meaning, on art. Instead, we behold the performance as an idea, in the philosophical sense of the word—an idea in which perceptive elements like rhythmic precision and pure intonation are repressed. Apt to detract from the sacred words and the mood of devotion, they seem irrelevant or even undesirable.
>
> We might compare such unconscious heterophony with the natural, leisurely walk of a group of people who move in the same direction without keeping unchangeable abreast or caring for equal steps. These they leave to the unnatural, rigorous unison of marching paraders. 22

This need, for a kind of spiritual serendipity, appears in those works written from 1900 onwards. At its most musically complex and as the apotheosis of Ives' own Transcendental beliefs both the Concord Sonata and late orchestral works put such ideas into practice. Anticipating by at least fifty years John Cage's multi-perceptual Musicircus, Ives recognized a need in his "newer" scores for the

listener to be selective from one aural event to the next.

Besides the composer's belief that unintentional mistakes in folk performances could often be put to good artistic use at a later date, there is an additional consideration: that of the vocalist actually wishing to be heard above the general crowd effect. Such personalized freedom goes together with a kind of anarchistic spirit: a lone voice sounding through, yet remaining a small part of democratic public worship. In practical terms G.P.Jackson noticed this when attending a Sacred Harp convention in the 1920's. Dealing with the issue of personalized rhythmic variations where each singer had a policy of "not tolerating any dead spaces or long rests" he observed that as there

> . . . was no instrument to fill the melodic-rhythmic vacuum, the leaders and singers deliberately disregard the rest-beat and proceed as though it did not exist. This procedure naturally throws the leader's regularly alternating beat out of joint with the tune, making him beat "up" on a down beat and vice versa, until he comes to another discarded pause that sets him straight again. With all this, it will be seen, much of the variation in accent heft is lost by the singer and to the hearer, and the rhythmic flow becomes mechanized. 23

While this extract refers to the singing of fuging tunes in metrically rigid style, Ives' own treatments of rhythmic "shifts" in the First Piano Sonata scherzi bear some correspondence with the above. In addition, similarities here can also be drawn with his accounts of displaced rhythms and improvised melodic "fill-ins" of the New England band traditions. Both Sachs' and Jackson's vocal descriptions also coincide with Henry Cowell's appraisal of Ives' orchestral part writing:-

> Each player, with a very strong feeling for the general whole, has his own quite individual part. The result is a full polyphony, as each one is apt to have his own melody, and all may be sounded together; yet the whole synchronizes into a rich unity of sound. Individual players are often rhythmically independent also, and are asked to play a different rhythm of their own across entirely different rhythms of the rest of the orchestra, but coming out together with the rest at some specified point! 24

Whereas Sachs' definition of "unconscious heterophony" is concerned with the improvised interaction of one melody with or without its associated harmonies Ives, having initiated this process in his ragtime obbligati and solos, takes it one step further in his orchestral experiments; for, with a much wider timbral pallet he constructs sound collages of frequently unrelated tunes or their fragments from patriotic airs, juxtaposing them with hymns and band melodies.[25] Charles Seeger, who like Cowell was an experienced ethnomusicologist, offers a more comprehensive definition of heterophonic effect: this not only embraces the freer conceptions of John Cage but can also be applied to the diverse methods used by Ives in his mature piano writing, whether in parts of the sonatas or studies to be discussed later.

> By <u>complete</u> heterophony we understand a polyphony in which there is no relation between the parts except mere proximity in time-space, beginning and ending, within hearing of each other, at more or less the same time: each should have its own tonal and rhythmic system and these should be mutually exclusive, while the forms should be utterly diverse. Heterophony may be accidental, as, for instance, a radio-reception of Beethoven's "Eroica" intruded upon by a phonograph record of a Javanese gamelan. But from an artistic point of view, a high degree of organization is necessary (1) to assure perfect non-coincidence and (2) to make the undertaking as a whole worthwhile. 26

Ives, unlike Cage, was indeed meticulous in the way that he juxtaposed his sounds. For him, ironically, musical chance required careful organization.

The creative possibilities offered by his early observation of folk heterophony enabled the construction of a new language which not only encompassed the Transcendental world of human activity, but also attempted to recreate the thrill and daring of a colloquial performance of "let out" souls. Such an experience was not necessarily confined to his memories of bygone camp meetings; for, they also pertained to any kind of corporate music-making where a concern with the printed note was considered subordinate

to personal expression. Ives' ragtime playing strengthened this viewpoint, especially at a time when pressures of work and his increasing inability to notate exactly all that he heard in his mind's ear caused him to say,

> I got into the habit of carrying things in my mind which were not put down, or only partly put down, on paper. 27

Here he was reinforcing and perpetuating the feeling of anyone involved in the transmission of predominantly aural and oral traditions of folk performance. Stravinsky too, while formulating his Danse sacrale for the Rite of Spring, recognized the frustrations of not being able to notate similarly inspired ideas.[28] But with Ives, merely the barest bones of an improvised idea could be all that was needed to set his recreative memory on the right path.

e) ORNAMENTATION & GLIDING NOTES

It is now clear that Ives regarded the incorporation of vernacular elements and attitudes into his own style as a natural part of creative inspiration. Yet this viewpoint was not unique in his part of the country; for, much earlier William Billings too had crafted his own language from New England folk practices. Similarities between his and Ives' pragmatic approach towards composition are apparent in Billing's following statement:-

> Perhaps it may be expected that I should say something concerning Rules for Composition; to these I answer that Nature is the best Dictator, for all the hard dry studied rules that ever was prescribed will not enable any person to form an air.. . . Nature must lay the foundation, Nature must inspire the Thought.. . . For my own part, as I don't think myself confin'd to any Rules for composition laid down by any that went before me, neither should I think (were I to pretend to lay down Rules) that any who come after me were any ways obligated to adhere to them, any further than they should think proper; so, in fact, I think it best for every Composer to be his own Carver.

While many of Billings' fuging tunes and anthems clearly show the influence of contemporary ballad opera melodies, they also absorb

the perfect-interval harmonies and angularities of folk monodies. Often these effects seem cobbled together and roughly fashioned into crude but most original musical expressions. Looking dry and simplistic on paper it must be realized that they were performed adopting the vocal peculiarities of their time. Today swoops, glides, nasal attacks and other ornamentations would not be inappropriate additions during a truly spirited interpretation of some of Billings'pieces.

The term "ornamentation" as applied to folk practice has little in common with similarly named devices in eighteenth and nineteenth-century art music. Rather, the customary trill, turn, mordent and related forms are poor notated rationalizations from oral sources mollified and injected by composers into styles of more cultured and genteel appeal. In fact it is practically impossible to accurately record the often minute pitch gradations used in most of the world's folksong ornamentations. Certainly five-line staves are inadequate even for notating the enharmonic intervals of western art music; all are straightened to conform with the equally-tempered keyboard. The electrical recording has offered some kind of compromise, but problems of transcription from this source still remain, for:-

> . . . there is not even an accepted standard vocabulary for the study of folk-singing style. One can agree on some general distinctions between basic singing styles, such as the tempo-giusto (strict-tempo) and the parlando-rubato (free, speaking rhythm) style. But many folk performers do things with their voices that have little or no relationship to formal music, and it is difficult and misleading to describe those things with terms borrowed from formal music. The style of traditional singers may include how they release their words; how they approach their pitch (do they slide nasally up to it?); whether their voices are tense or relaxed; whether their timing is metrical, semi-metrical, or nonmetrical; whether the mouth is wide open or partly closed, and how this affects the formation of vowel sounds. Style includes the way some singers ornament the melody with devices such as vibrato, scooping (slurring up to a note), sliding down to a note, and feathering (adding a hook to a note by use of a glottal stop). In various forms of ensemble singing, style can include the extent to which the voices are synchronized, notions of harmony and counterpoint, and the overall texture and blend of the voices.

> And these are only some of the aural aspects of style, only some of the features accessible to record listeners. Equally important elements of style include the way a singer presents a song to his audience: the facial expression, the gestures, the subtle body movements that help him communicate his interpretation. The immediate social context in which the song is sung—a work situation, an educational one, or a family gathering—also forms part of style. 30

Like Ives, the above commentator recognizes inevitably that any form of transcription is but a poor compromise for the real thing: ultimately incapable of recapturing any extra-musical implications, or the inherent freedom of any folk performance.

Gliding notes and variable intonations were an intrinsic part of the performances that Ives heard. Comparisons here can also be drawn by the similar use of vocal idiosyncracies in English congregational singing occurring in the early nineteenth century. Gilbert Chase cites evidence collected by John Curwen:-

> Though Curwen wrote in the 1870's he interviewed informants whose memory and experience reached back to the early years of the century, and who spoke of traditional practices handed down from an earlier generation. One informant stated that in his early days, when the melody leaped a third, the women invariably added the intervening note; and if it leaped more than a third, they glided up or down, portamento, giving the next note in anticipation. Another informant confirmed the common use of appoggiaturas and gliding from one note to another. Another told of men in his congregation who 'sing the air through the tune until they get to the end, and then, if the melody ends low, they will scale up in falsetto to the higher octave, and thus make harmony at the end.' Curwen's informant also told him that 'in the old times the people liked the tunes pitched high; the women especially enjoyed screaming out high G. It made the psalmody more brilliant and far-sounding.' It should be observed that in those days it was the men, not the women, who carried the 'tune' or principal air; therefore, the screaming on high notes may have been a compensatory means of feminine self-assertion. 31

And in conclusion he says:-

> I am not prepared to state categorically that these practices prevailed in eighteenth-century New England, but there is every reason to believe that they did, for they evidently belonged to the same tradition of folk psalmody and would doubtless have contributed to conveying an impression of what learned gentlemen like Cotton Mather called 'an odd Noise.' 32

From Curwen's observations one can note the filling in of intervallic gaps, wholesale sliding between notes which result in ambiguous

intonations, octave transpositions reminiscent of a "humanophone" technique,[33] and pitches which sometimes leap into falsetto registers. It looks as though such traditions continued into Ives' own childhood. Later the apparent arbitrariness whereby, in piano writing and larger works, he made full use of dissonant clusters and octave transpositions[34] together with a concluding foray into the realm of quarter-tone theory, could well reflect his continuing recall of old folk styles.

There may be further explanations for the composer's interest in the characteristics of the human voice: the inflections of speech and its translation into musical effect. Words meant a great deal to Ives. His acute ear for the remembered anecdote or tune is evident throughout his writings. Though he stated that "music is beyond any analogy to word language,"[35] he firmly believed that

> . . . the time is coming, but not in our lifetime, when it will develop possibilities inconceivable now—a language so transcendent that its heights and depths will be common to all mankind. 36

Thus it is not surprising that he endeavoured to close the gap between music and language by attempting to transform the thoughts and utterances of the Transcendentalists into his own creative expression. The Concord Sonata clearly conveys what he was striving towards. His nephew Brewster Ives remembers an occasion when his uncle

> . . . illustrated what he was attempting to do by reading passages from Emerson, the Alcotts, Hawthorne, and Thoreau and then playing passages after he had read them to convince me that the music was expressing the words of the author. He also took passages from other authors and showed me how these had been set to music by other composers. He showed me how with quarter tones the means of expression could be multiplied in almost a geometrical fashion, and the breadth of expression that this gave to music. 37

f) INTERVALLIC ADJUSTMENTS & RHYTHMIC VARIATIONS

Although New England vocal traditions were primarily of European origin, by the middle of the nineteenth century the exotically derived line of the negro spiritual began to take its place at camp meetings. It is not within the realm of this discussion to trace the roots of this form other than to stress that its derivations are abstruse, to say the least. Ives noted the increasing popularity of this new style as its vital and bold expressions gradually began to usurp older traditions of hymnody. Later gospel song blossomed from the spiritual, resulting in the kinds of extrovert revivalism that we associate with Sankey & Moody towards the end of the century.

On returning from the Civil War Ives' father had a negro boy in his employ, and the whole family took it upon themselves to give him an education. Charles Ives had a great affection for this young man called Anderson Brooks, and certainly learnt a great deal from him about negro styles of singing. He recalled the melodic and rhythmic variations that Brooks applied to tunes picked up while listening to George Ives' band. Ives'

> ((Father)) found quite often that ((the boy)) would change the melody by leaving out the 7th of the scale and sometimes the 4th,—for instance, if the tune ended lah-te-doh upward, he would sing either lah-lah-doh or lah-doh-doh. 38

While noting the negro's preferences for singing in gapped scales and his aversion for diatonic semitones Ives pondered upon the reasons for such modifications:-

> The Gospels used the 4th and 7th sometimes, but the negroes were still too near Africa and the oriental five-tone scale to get these. But it was not, to my mind, these physical techniques as much as the fervor, conviction, and a real human something underneath, that the negroes heard in these Gospel Hymns and reproduced in a little more drawling way, their own way. 39

Presumably these performances included swoops and glides: the addition of intervallic gaps would have made such embellishments so much easier.

While the negroes certainly held sway with "blues" types of delivery, white congregations could easily match them when it came to the wholesale rejuvenation of traditional hymns: this way "old favourites" could still maintain an important position amidst more contemporary styles of repertory. G.P.Jackson cites the example of an old "slowly-dragged-out psalm tune of the colonial period"[40] in G-major 4/4 time being modified into a faster 2/4 melody with gaps introduced to transform it into pentatonic shape: its texts were also simplified to attract and accomodate the interest of less educated audiences. He continues:-

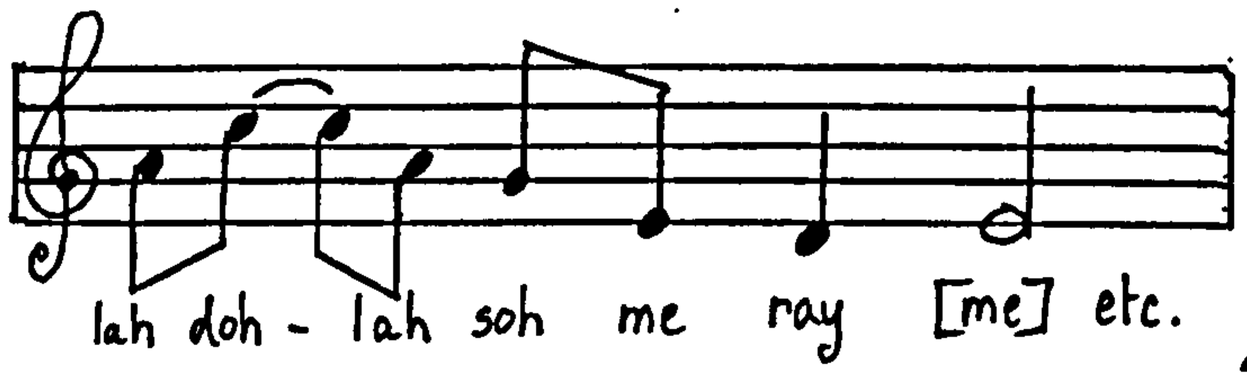
> It will also be noted that the camp-meeting re-maker used the melodic trend of the older and more sedate song only as far as it would fit. Then he went over to his own, or the crowd's own, musical inspirations. He has also made the tune over from a full major to a five-tone one, the sort the camp-meeting folk liked far better. 41

While Jackson does concern himself with more recent traditions of hymnody in the White South, these particular observations would almost certainly to Ives' own New England experiences of forty years earlier.

The previous chapter has already shown the extent to which the composer subjected hymntunes to most original processes of variation treatment. Looking at such borrowed quotations more closely we see that Bringing in the Sheaves and Oh Happy Day from his scherzi writing are both simple in construction and based upon the pentatonic scale. In fact Ives invariably preferred to choose straightforward and "homey" hymns for most of his scores. Whether their use relates to the kinds of tunes sung by Anderson Brooks is open to debate. However, he noted something special about negro performances at Danbury camp meetings:-

> . . . there is now a general realization that the negroes drew on these old hymns more than most people realize. . . The negroes took many of the phrases, cadences (especially plagal—they liked the fah chord), and general make-up, and the verse and refrain form,

and the uneven way many of these hymns were sung rhythmically, especially the choruses. The congregation would get excited and start a strong phrase by a shortening of the phrase before. The negroes took and exaggerated some of these things in their own way and especially a melodic phrase like this:



42

John Kirkpatrick has observed that:-

> This fragment sounds like a germ of the theme in the Concord Sonata which Ives called "that human faith melody"—but without the three-note upbeat. 43

This is true. Even so, it is debatable within the context of the sonata whether this particularly important motive is specifically intended to be hymn-like: throughout, as the "human faith melody," it is placed in opposition to genuine hymn quotations of a much more sacred nature and usually appears set apart from other themes. Hence the secular, expressed in terms of this Foster-like motive is pitted against the more spiritual, as represented by constantly ambiguous treatments of the diatonic tunes Martyn and Missionary Chant.

However, Ives' little negro example above does bear strong comparison with his manipulation of similar melodic lines in the central movement of the First Piano Sonata. Here the hymntune Erie and the popular air Massa's in the Cold Ground appear together in a kind of improvised fantasy where their mutual outlines drift in and out of musical focus. In stark contrast with the sonata's frenetic hymntune scherzi, this offers meditative treatments of both tunes' head-motives. Their pentatonic shapes are subjected to an intuitive kind of working through: successive chromatic and diatonic reassessments transform the original materials into a multitude of motivic possibilities. The thesis appendix is a detailed examination of the melodic variants which make up this unique approach: one which

endeavours to accommodate every performance facet of New England vocal styles as Ives experienced them in his youth.

g) SUMMARY

Ives' early Danbury environment brought him in touch with a wide variety of hymns and religious songs used at church services and outdoor camp meetings. These ranged from the earliest Calvinist melodies to the latest spiritual and gospel types. The composer became acutely aware of the ways in which each participant during a massed gathering offered very individual renditions of the tunes being sung, and of the effect that such performances gave to the overall sonic proceedings. Ives' observations and descriptions of these types of heterophonic singing concur with similar ethnomusicological accounts gathered from various parts of the English and Gaelic-speaking world.

Adding these to his other interests in black styles of rhythmic and melodic vocal performance Ives could build up a compositional language which incorporated elements borrowed from the personalized embellishments, variable intonations and intervallic adjustments of such folk traditions. All these features combine in the central slow movement of the First Piano Sonata where the melodic correspondences between the hymntune Erie and the song Massa's in the Cold Ground both juxtapose and interpenetrate in a free kind of variation technique. Kaleidoscopic interactions appearing in this movement anticipate the complex hybrid styles used in the two completed sonatas. They too contain many musical constituents relating to the types of individual performance practice witnessed early on by the composer.

References.

1. Lowens, Music and Musicians in Early America, p.257.
2. Hitchcock, Music in the United States, pp.115-6.
3. Ives, Essays Before A Sonata, p.75.
4. Ibid.
5. Ibid.
6. Ibid., p.77.
7. Ibid., pp.22-3.
8. Ibid., p.8.
9. Lowens, op.cit., p.241.
10. Mellers, Music in a New Found Land, p.7.
11. Ibid.
12. See printed scores of Psalm 67 and Psalm 150.
13. Mellers, op.cit., p.8.
14. Hitchcock, op.cit., pp.97-8.
15. Ibid.
16. Ibid., p.104.
17. Ives, Memos, pp.132-3.
18. Ibid., p.133,n.5.
19. Ibid.
20. See 2nd.edn. p.34,sys.2; p.42,sys.2-3. Both are based upon the melodic ambiguities between the tunes Missionary Chant and Martyn.
21. Chase, America's Music, p.31.
22. Sachs, The Wellsprings of Music, p.186.
23. Jackson, White Spirituals of the Southern Uplands, pp.125-6.
24. Cowell, American Composers on American Music, p.134.
25. See Fourth Symphony second movement; Second Orchestral Set.
26. Cowell, op.cit., p.111.
27. Ives, Memos, p.137.
28. Stravinsky, Expositions and Developments, p.141.
29. Chase, op.cit., p.129.
30. Charles Wolfe, sleeve note from New World Records No.223.
31. Chase, op.cit., p.35.
32. Ibid.
33. Cowell and Cowell, Charles Ives and His Music, p.21:-
    . . . humanophone, an arrangement of singers in which each person sang a different tone of the scale, and that one alone, sounding his tone only when the tune called for that particular note.
    ((This also resembles tunes played on handbell sets or the practising of vocalized hookets in folk music)).
    Also see Ives, Memos, p.142 with n.4.

34. See Concord Sonata 2nd.edn.,octave transpositions on p.8.
35. Ives, Essays . . ., p.8.
36. Ibid.
37. Perlis, Charles Ives Remembered, p.74.
38. Ives, Memos, p.53.
39. Ibid.
40. Jackson, op.cit., p.240.
41. Ibid., p.241.
42. Ives, Memos, pp.53-4.
43. Ibid., p.53,n.11.

CHAPTER FIVE

ACOUSTICS & KEYBOARD SONORITY:

EXPLORATIONS OF TIME & SPACE

a) INTRODUCTION

This chapter investigates Ives' observations of natural sounds and acoustical phenomena, how these were interpreted in the light of his Transcendental beliefs, and the way that he built up a body of new musical materials through progressive experimentation. His discoveries and resulting attempts to capture in traditional spelling notation the conceptual elements of variable and microtonal intonations will be discussed in relation to the ways these theories are applied in the piano writing. Emerging from this will be a further examination focussing on the innovative structural methods used to create in keyboard terms dual impressions of aural distancing and contrasting time continuums as an implementation of his philosophical ideals.

b) AN EXPLORATORY PARTNERSHIP

While Ives' fascination with a great many musical cultures and performance styles clearly contributed towards his experimental ideas, it was a keen interest in sound as a natural phenomenon which produced his most innovative creative expressions. Early guidance from his father not only brought him in touch with contemporary music of the Romantic composers, but more importantly directed him towards lines of enquiry into the very essence of sound, both in terms of scientific analysis and psycho-acoustical appraisal.

George Ives was both traditional and yet pragmatic in the way that he equipped his son with the basic materials of musical craft.

His teaching commenced with a solid investigation into the "known" of compositional history and practice; then he progressed into new lines of empirical search via a kind of "rule of thumb" process towards the "unknown" of experimental exploration.[1] Charles Ives expressed his father's viewpoint succinctly when recalling his early studies into counterpoint: George Ives had reminded him that,

> If you know how to write a fugue the right way <u>well</u>, then I'm willing to have you try the wrong way—<u>well</u>. But you've got to know what ((you're doing)) and why you're doing it. 2

Similar approaches applied in George Ives' attitude to traditional harmony textbooks of the day. He knew the rules, but questioned whether all were relevant in compositional practice. Indeed his own writings show both a dislike for accepted academic terms and the limited expressive possibilities afforded by the common forms of stave notation and spelling. Even notions of dissonance were considered for reappraisal:-

> This 7th note produces what all musicians call a dissonance but sounds in some cases to me only like a partial dissonance and is used so much that we get used to it and treat it as if it were as much of a consonance as our other tones. 3

The ear was the final arbiter: rules could be revised or even broken as contingency demanded.

But most of all it was George Ives' scientific investigations that left such an indelible impression on his son. He relates that his father's

> . . . study of acoustics led him to many experiments into the character of musical instruments and of tonal combinations, and even into the divisions of the tone. 4

Henry Cowell noticed that "one of Helmholtz's books was in the family library",[5] though John Kirkpatrick denies that any such copy has survived.[6] However, it may be that on occasions George Ives did consult this most famous of scientific writers for both information on and consolidation of his own acoustical investig-

ations. His somewhat eccentric behaviour on the conduct of these was recorded in his son's late article Some 'Quarter-tone' Impressions of 1924-25:-

> One afternoon, in a pouring thunderstorm, we saw him standing without hat or coat in the back garden; the church bell next door was ringing. He would rush into the house to the piano, and then back again. "I've heard a chord I've never heard before—it comes over and over but I can't seem to catch it." He stayed up most of the night trying to find it in the piano. It was soon after this that he started his quarter-tone machine. 7

Curiously enough the eerie opening chords of the composer's Three Quarter-tone Pieces for two pianos seem to hint at similar effects. His father recognized that sound's acoustical properties often changed or became harmonically modified when heard from a distance and when obscured by rain, fog or other atmospheric conditions. 'A study of bell inharmonicity and its connections with microtones caused Ives senior to invent an "instrument" to recreate such sounds. His torment of a clothes press gave some weird results:-

> He rigged up a contrivance to stretch 24 or more violin strings and tuned them up to suit the dictates of his own curiosity. He would pick out quarter-tone tunes and try to get the family to sing them, but I ((Charles Ives)) remember he gave that up except as a means of punishment—though we got to like some of the tunes which kept to the usual scale and had quarter-tone notes thrown in. 8

No doubt he noticed strong correspondences here with his own slide cornet accompaniments to the shifting surge-singing of Danbury camp meeters; perhaps the swoops and glides of negro vocalizing also came to mind. Had George Ives actually succeeded in fashioning an original musical language out of his microtonal zither, he might have arrived at something resembling "43 Whines to the Octave" of the experimentalist Harry Partch.[9] Charles Ives continues:-

> A little later he did some experimenting with glasses and bells, and got some sounds as beautiful, sometimes, as they were funny—a complex that only children are old enough to appreciate. 10

Gamesmanship and "boy's fooling" were an inseparable part of these empirical investigations. Ives could even recall an occasion

in 1885, when he was only ten, of the subjective associations promoted by his father's experiments:-

> I remember distinctly one impression (and this about 35 years ago). After getting used to hearing a piano piece when the upper melody, runs, etc., were filled out with quarter-tones (as a kind of ornamentation) when the piece was played on the piano alone there was a very keen sense of dissatisfaction—of something wanted but missing—a kind of sensation one has upon hearing a piano after a harpsichord. 11

The joint microtonal explorations by the Iveses attuned their ears to phenomena which far transcended the traditional viewpoints of accepted musical theory.

c) IMAGES IN SOUND

In the composer's opinion, many of his acoustical discoveries were affirmed by the writings of his favourite Transcendental authors: Thoreau provided the sonic images, Emerson their spiritual consolidation. But often it was the natural environment's own Transcendental assent that fired his creative imagination.

Thoreau's book "Walden" and especially its evocative chapter "Sounds" made a deep impression on Ives. The following is just one passage which he regarded as particularly special:-

> Sometimes, on Sundays, I heard the bells, the Lincoln, Acton, Bedford, or Concord bell, when the wind was favorable, a faint, sweet, and, as it were, natural melody, worth importing into the wilderness. At a sufficient distance over the woods this sound acquires a certain vibratory hum, as if the pine needles in the horizon were the strings of a harp which it swept. All sound heard at the greatest possible distance produces one and the same effect, a vibration of the universal lyre, just as the intervening atmosphere makes a distant ridge of earth interesting to our eyes by the azure tint it imparts to it. 12

Every sound becomes a symbol — a divine ambience. Ives' own paraphrase in his Essays is in fact longer than the author's original. He embroiders it with additional hymn singing, Thoreau's flute playing and a metaphor of the swan song. All derive from German Romanticism; a truth Ives would have chosen to ignore. For him

the most important features in both accounts would have been the sound of the Concord bell and more mystically, the "vibratory hum" issuing from the "universal lyre."

Ives was sufficiently impressed by these and Thoreau's other observations of aeolian-harp effects conveyed by humming telegraph wires[13] that he tried to imitate such sonorities in the opening of his quarter-tone Largo:-

> An interesting effect (the manner of which is more physicological than musical) may be obtained by striking a chord on both pianos, made of a series of whole-tone triads on, say, C C♯ D D♯, distributing them upward through three or four octaves. In this way all the twenty-four tones are caught, and in a chord not especially harsh. If the pedal is held, as the sounds die away, a composite is heard in rhythmic waves similar to the sounds one hears on putting the ear close to a telegraph pole in a high wind—"the music of the universal harp," a Thoreau calls it. Perhaps he caught some of the composite resultants which other ears don't catch. If he did, his inspiration from natural sounds probably reached its zenith—for is not the simple resultant one of the most wonderful and mysterious things in nature? 14

Many of this movement's microtonal whole-tone mixes certainly connect with the composer's representative aims: the arpeggio runs at bar 42 together with similar shapes at the beginning of the Concord Sonata's Thoreau are good examples of these harp and bell sonorities.

Armed with knowledge gained from his acoustical deliberations and their literary equivalents the young Ives, after walking in the countryside and hearing such things for himself, would probably have discussed them with his father. Perhaps this promoted their joint experiments into the very nature of overtone properties. Certainly very much later in the orchestral work Washington's Birthday (1909) Ives' liking for composite resultants can be seen in his use of the aeolian-sounding jew's harp: a folk instrument whose own percussive vibrations just about produced "a diatonic tune . . . more apparent than real."[15] Accordingly, the composer's acoustical evocations like the early "cloud sounds", "puritan strength" bitonalities and various off-key "stunts" point to rather more than just a mere

playing with sound effects.

In the mature piano writing these traits are an intrinsic part of his "new" style. Being so commonplace it is often a problem in identifying where they are used, and in explaining the reasons for their inclusion. The composer's printed performance notes to the Concord Sonata refer to many areas (identified with asterisks and reduced notations in places) where he seeks to recreate "the outdoor sounds over the Concord Hills", "the overtones of the soul of humanity", "a distant echo over Walden" or in its closing bars "the distant echoes over the lake." At other times markings are even more enigmatic: the high F♯'s in The Alcotts both represent "overtone echoes over the 'Orchard House' elms", or just an exclamation "What's all this?"[16] All show Ives' psycho-acoustical obsessions with the dissonant frequencies of summation tones; yet, it is usually impossible to analyse these effects according to the physical laws of acoustics. The First Piano Sonata abounds with them as well, but more helpfully some are circled by "balloons" in the printed score.[17]

Usually these subjective overtones are notated at very low dynamic levels and intended to be played fractionally after more consonant chords and notes. They are applied either in close semitone or tritone proximities. Ives' own recorded improvisations and realizations show that when such effects are added, they are invariably clouded with heavy pedalling: this accentuates his aim for a mystic aura of composite vibrations.

d) NEW INTERPRETATIONS OF NOTATION & SPELLING

The composer's striving for that which he heard in his mind's ear is well emphasized in Ives' outburst "My God, what has sound got to do with music!"[18] Consequently an ideal performance could only be

be achieved by coupling the objectivity of sound realization with the subjective associations implicit in musical meaning, and

> . . . what it <u>sounds</u> like may not be what it <u>is</u>. 19

Yet with this in mind, it is all the more surprising that he should choose the piano's fixed intonation as a primary source for sketching out a large proportion of his most important compositions. Nevertheless he fully appreciated its tuning limitations:-

> Why must the scarecrow of the keyboard—the tyrant in terms of the mechanism . . . stare into every measure? Is it the composer's fault that man has only ten fingers? Why can't a musical thought be presented as it is born . . . 20

Deprived of the orchestra's many colours, combinations, space and varying qualities of intonation, no wonder that grand designs as acted out in the sonatas could hardly reflect all of his musical conceptions.

With the piano Ives understandably had to compromise. By adding his personalized overtone techniques to an instrument of fixed tuning he could at least aspire towards investing it with the semblance of microtonal properties. When he did so in the <u>Concord Sonata</u>, notations were often brought into question by more academically inclined performers. The composer replied:-

> The twelve notes in a nice well-tuned piano are "twelve notes" —machine-made almost—but at present the best instrument, that is, the widest sound implement we have, for only one man to use. But the mind, ear, and thought don't have to be always limited by the "twelve"—for a B♯ and a C♮ are not then the same—a B♯ may help the ear-mind get higher up the mountain than a C♮ always. 21

Again taking a lead from his experience of vocal practice, he continued this analogy by considering the brightened leading-note effect rising to the tonic:-

> It has another use, perhaps a more important ((use)) than a nice little guide in a resolution—it makes a chord, in some cases, more a help and incentive for the ear and mind to say (nearer to) what it feels. For instance, in the key of C, B going up to C, sometimes under certain moods, is sung (regardless of the piano) nearer to C than the B on the piano—and, going down from C to B, farther away. Now when both the two B's are used in a chord,

> there is a practical, physical, acoustical difference (overtonal, vibrational beats) which makes it a slightly different chord than the B's of an exact octave—and ((even)) on the piano the player sees that and feels that, it goes into the general spirit of the music—though on the piano this is missed by the unimaginative. 22

This extract partially explains the predominance of dissonant seventh and ninth intervals throughout his later piano writing. For Ives' ears at least, they could represent a more realistic aural record of the impure octave tunings occurring in all instrumental mediums other than those for the keyboard: generally involuntary alterations caused by wind embouchure adjustments, subtle changes on string fingerboards, or a singer's minute regulations of breath control. Such variations usually stabilize around Pythagorean intonation;[23] though personalized interpretations wedded to accepted habits of cultural performance practice also make an important contribution to the way that certain intervals are tuned.

On one occasion Ives recalled an opportunity of trying out some enharmonic experiments in variable intonation with the help of six violinists. His detailed account of the execution of sliding chordal passages rising and falling through the notes B-B♯-C and D-D♭-C respectively states that these ideas are transferred to a piano passage in the Concord Sonata on the last four beats of p.16,sys.3. Here he discusses the differences between the gliding movements of his ad hoc string group, the piano's fixed intervals, and the necessary compromises made when recording such effects in traditional notation:-

> And when this passage ((transferred from the strings)) is played on the piano, this difference can be sensed, if not actually heard—that's the piano maker's or tuner's fault, not the ear's. That is, as the G goes to A♭, the B♮ is sensed as going to C♭ —in the strings the chord A♭-C♭-G♭-B♭ is a different chord from A♭-B♮-G♭-B♭ . . . the difference in its overtonal beats (actually measured vibrationally), especially if hit rather hard, is evident. 24

Ives' mature style contains countless examples of this elusive

phenomenon. Had he succeeded in completing the projected orchestrations of much of his piano music (including the Concord Sonata) it is likely that quarter-tones, smaller microtones and sliding intonations would have been included with rather more frequency in his scores.

Besides the purely acoustical aims given above, Ives also ascribed his accidentals with emotional properties:-

> Then,to my way of hearing and thinking, a sharp is a kind of underlying sign of, or senses and reflects or encourages, an upward movement, tonal and more perhaps spiritual, at a thing somewhat more of courage and aspiration-towards than the flat carries or seems to—the flat is more relaxing, subservient, looking more for rest ((and)) submission, etc.—often used as symbols as such, when they're not needed as the signs of tonality in the usual way.

So, these associations continued to apply even in music which moved away from (or more accurately in Ives' case, passed through varying areas of) tonality. It appears that in his non-tonal writing as well he still wished his performers to maintain psychological aspirations towards "sharpness" and "flatness", though in this instance not in relation with the usual tonal-chordal hierarchies; that is, of course, unless aspects of tonality were reintroduced back into the work's normal flow. Further criticisms, again as to the nature of his enharmonic spellings within parts of Hawthorne elicited more remarks. As most works of this period were already constructed from hybrid syntaxes mixing elements of tonality, atonality and even kinds of free serialism, Ives rounded on his detractor:-

> He couldn't see that if there isn't (in the whole or only a section) a key—that is, when the notes are not used in the tonal relations that a key superimposes on the substance—that signs which would suggest that tonality should not be used as such—they are more or less misleading, first the eye, then the ear. 26

Again, using his ear as the primary judge, he came to the logical conclusion:-

> Thus, when a movement, perhaps only a section or passage, is not

> fundamentally based on a diatonic (and chromatic) tonality system, the marked notes (♮,♯ or ♭) should not be taken as literally representing those implied resolutions, because in this case they do not exist. 27

As an improvising pianist it may be that Ives regarded each tonality and its related hand placing on the keyboard as possessing a particular expressive musical "flavour". Similar connotations were rather more systematically applied to unequal temperaments up until the beginning of the eighteenth century. However, in Ives' case, when presumably he played on instruments which were more or less "in tune" in our modern sense, it seems that certain tonal areas automatically elicited variable attitudes toward spellings when these were set down in notation. While equal temperament no longer offers any basis for such subjective feelings,[28] the fact remains that most pianists, especially those in popular fields, recognize some sort of emotional difference between the "brightness" of C-major and the "bluesy" feel of "blacker" keys like B♭-major. John Kirkpatrick too points out the composer's idiosyncratic spellings, noting an occasion when Ives transposed the opening accompaniment of the First Violin Sonata from notated E-minor into F-minor:-

> What had been E-G-B was now spelled F-G♯-C♮, and all of the transposed chords were pretty much ((adjusted)) that way. 29

Similarly, on looking at parts of the piano sonatas it will be seen that on the rare occasions that Ives chooses to write in C-major, such areas normally present the most tonal of musical ideas and gravitate rather less towards modulating chromaticism: good examples of this appear in the Concord Sonata pp.8-11; p.25, lower two staves; p.57,sys.5 to the end; p.62,sys.5: the Scene Episode section at pp.44-6 of the First Piano Sonata . All these reinforce the sense of tonality with strong pedal notes in the bass. Chromaticisms placed above and between the textures can be considered just

as embellishments, hardly strong enough to disrupt the overall key stability.

In preparing the revised edition of the Concord Sonata for printing during the 1940's, it is surprising that Ives did not adopt his friend Henry Cowell's method of notating cluster groupings in blocks; for, there are many occasions here when traditional forms of spelling procedures prove rather inadequate for recording the composer's concept of blurred pitch movement. His Memos rarely identify such intended effects; but in Emerson (p.18,sys.1) he indicates that:-

> These ((Beethoven's "Fifth")) chords are but the knocks on the portal, and are played more as such, as bang more than as music. They have no inner counterpoint, but I remember there was a kind of a blur up in the middle of the second chord—and why the F was let out in the second time I don't know. 30

John Kirkpatrick indicates this as the thumbed F in the right-hand part.[31] Alternatively, Ives could be lamenting the fact that his engraver had not followed original instructions by filling out this chord as a cluster of adjacent white notes intended for playing with the open palm of the hand. A similar intention may be hinted at in the notations from the 1920 first edition printing of this work. There, handshapes appearing at the foot of page 2, systems 4-5 as six semibreve groupings, each enclosed by a large "V" bracket could also indicate the possibility of palmed clusters. The removal of this indication for the second printing is inexplicable unless the full cluster effect was deemed unplayable during the work's first complete performances in public.

The correct interpretation of the composer's very personal attitudes towards notation will always prove a problem whether applied to the piano or any other instrumental medium for that matter. All the pianist can do is at least to strive for a synthesis of Ives' acoustic, psycho-acoustic and spiritual ideas during

his personal realization of a score. John Kirkpatrick recognizes:-

> That's a department of Ives's music in which I feel you have to tread a mid-course between two exaggerations: either the exaggeration of over-literal reverence or the exaggeration of being unaware of pitch subtleties. Ives said, very justly that it's surprising how by subtleties in volume it's possible to suggest subtleties in pitch, and that's perfectly true. For instance, in a chord like an augmented triad you can make any one of the three notes seem like a leading tone by a proportion of emphasis. I've done it and I've heard other people do it. 32

Yet while Kirkpatrick is undoubtedly correct in saying that compromises have to be made in performances, his present policy in issuing new editions of Ives' music with corrections of "non-conformist spellings ((which)) offer unreasonable hindrances to memorizing", [33] shows complete disregard for the important philosophical and acoustical concepts that lie behind their notation.

e) THE BELL AS STRUCTURAL & ASSOCIATIVE DEVICE

The bell pervades most of Ives' mature piano writing, both as simplistic representation and as a complex assimilation into his techniques of composition. Its periodic chiming can be heard at the close of his Largo Risoluto No.2 (1906): here the piano obbligato is used as a structural foundation with tolling dominant-seventh chords placed under sustained string bitonalities. A similar basis occurs in the three-chord piano chime to the central trio of Tone Roads No.3 (1915). The clearest reference in the solo writing is a possible allusion to Westminster Chimes in Thoreau in a section which again has a strong ostinato structure.[34] But, considering that the composer heard bell sounds within the natural environment where distancing, obstructions and the prevailing wind could easily vary their sonic quality in an instant, the aperiodic effects resulting from these atmospheric changes would most certainly have claimed his attention. The kinds of arhythmic ostinato tolling used in the song accompaniments of Serenity (1909) and Full Fathom Five (1925) possibly

reflect these outdoor effects.

Generally though,Ives is very much more sophisticated in his ostinato representations of "resonant" imagery. The opening of The Alcotts is a case in point. The slightly off-balance repetition of its left-hand chords at p.53,sys.2-4 may hint at the chiming of the Concord bell, a conversation between Bronson Alcott and Sam Staples,[35] or perhaps could be a fusion of these and possibly additional elements into one musical expression. Ives' use of blurred ostinato effects closing his Emerson and Thoreau movements portray a similar synchronicity of associative impressions. It would be naive to describe these solely as "the sound of bells."

Besides the obvious transcendental connotations of these sounds, there is no doubt that Ives' acoustical studies, and often dissonant recreations on the piano began to influence his whole attitude towards improvisation. The "maqam" principle, as discussed previously, becomes increasingly important in his writing. This, allied with ostinato treatment, is well demonstrated at the beginning of the First Piano Sonata. As a meditation on the hymn-tunes Wandering Boy and Lebanon the movement wanders, in stream-of-consciousness style, through a variety of musical syntaxes; bell chimes and overtones rarely stray from the composer's thoughts. On pages 3-4 of the published score the "maqam" appears as an arpeggiated ostinato run in the left hand, loosely based upon a C♯-dominant-seventh chord. Taking his cue from experimental scales and arpeggios Ives adds, subtracts, modifies in terms of dissonance and consonance, and generally plays about with his basic chordal material. Extraneous notes are included here and there with the utmost freedom. Sometimes the basic arpeggio moves from its original $C\sharp V^7$ to an extended $C\sharp V^9$ shape; or as it descends, a dissonant A

is added to resemble bell inharmonicities. Obligatory use of the pedal accentuates this wash of sound. Later at p.4,sys.5 an arhythmic chime in the right-hand part creates a most magical effect. The song Hymn (from Largo Cantabile for strings of c.1904) has an accompaniment using similar "maqam" derivations and may have been a model for this later sonata section.

An ingenious version of bell "maqam" also appears in Emerson. Between pages 8–11 Ives employs a much more complex chord for his harmonic foundation. Broadly whole-tone in structure, an ostinato run is built from it in the rising sequence of notes C–G–E–F♯–B♭–C'–E'–G♯' . In purely acoustical terms this melange could be explained as an equally-tempered rationalization of the first thirteen partials issuing from the bass generator C.[36] Certainly Ives might have drawn upon harmonic theory for his structure. Conversely, as this arpeggio falls quite comfortably under the left hand, he may have decided that it just made rather a nice noise! Both explanations seem equally tenable; for, the composer could have arrived at either during various periods of his creative life. In terms of this present example, described as "outdoor sounds over the Concord Hills",[37] such inherent notions of ambiguity should be maintained. Yet looking at his placings of right and left-hand materials we can see the ease with which his large span could modify them according to desired contingency at the keyboard. Taking the pentatonic tune in the right hand, the composer shows how he progressively saturates this "white" five-note scale with additional chromatic notes placed at ever-widening range; there are correspondences here with the "manly chromatics" of his youth. Again, having something in common with the First Sonata procedures above, the left-hand part's basic bell arpeggio also undergoes successive additions of notes and dissonant chromatics. These

two treatments demonstrate how Ives can give a well-worn device like the ostinato new musical life.

f) FUSIONS OF TIME & SPACE

Time, in all its temporal and psychological manifestations is a major preoccupation with Ives. "The Bell" is the nearest finite image of this concept applied in musical terms. Both combine into three levels of temporal consciousness: a) historical time of past, present and future; b) Ives' own subjective and individual time associated with his memory; c) time as represented within a small-town community (like Danbury), which is reinforced by the reassuring chime of the church bell or time-piece in the security of one's own home. All three elements intertwine in Ives' compositions.

The idea of representing co-existent time continuums which musically unfold again relates to his religious and philosophical beliefs. Ives trusted in Emerson's evocation of the "Over-Soul": the omnipresence of a divine principle forming the spiritual unity of all being. In other words, he conceived a piece of music sounding in the customary terms of "real time", yet by means of its special construction offered the philosophical back-cloth of "Over-Soul time" as well. Hybrid forms adopted in the Three Page Sonata and contemporary sections from the First Piano Sonata herald a movement towards the incorporation of temporal dualities into his writing.

The relationship between consistent style and Ives' musical portrayals of space and distancing is an important one. Early pianistic "stunts" indicated his interest in creating a freely humorous dialogue between "perfection in performance" and "unintentional slips" of the finger. Two conceptual syntaxes are involved here, later being extended into a third with notated "cloud sounds" and other overtone effects. But at a much more consciously

systematic level, Ives' chamber Fugue on Shining Shore (1896) demonstrates his first known attempt at mixing the syntaxes of polytonality and of time relationships together. The work's final Amen which superimposes C-, A- and D-major tonalities, is so contrived as to give the sonic impression of a distant choir from a far-off world and existing in a "celestial" tonality. "Real time" ends at the dying of the last note. Yet the listener's musings are left still airborne: the Amen signifies that "Over-Soul time" continues its journey on into eternity. This elevation and extension of short "stunts" into longer sections of dual-syntax "ghosting" creates a slightly unnerving "doppelgänger" effect. Both the close of the Second String Quartet and the Robert Browning Overture (bars 160-8) also make good use of this device.

The first protracted application of this echo technique in Ives' solo piano writing appears in his three-staved Take-off No.4: Scene Episode (1906-7).[38] Again building his left-hand accompaniment around a sustained C-major arpeggio figure which is "polluted" by extraneous chromaticisms; on the top stave he places fragmentary quotations of the hymn head-motive to "Oh Happy Day" (tune: Happy Day) also in the same key. The middle stave is reserved for very soft bitonal echoes of fragments from "There is a Happy Land Far Far Away" (tune: Happy Land) "ghosting" in a "black" key and occasionally punctuated by soft off-keyed triads of B-major and Db-major. Here a kind of triple-syntax is produced: a main tune, some "ghosting" from a contrasting one, and an ostinato basis occluded by ripples of dissonance. A literary comparison with this can be found in Ives' note to his orchestral piece The Housatonic at Stockbridge (1908-?14):-

> . . . ((which)) was suggested by a Sunday morning walk that Mrs. Ives and I took near Stockbridge, the summer after we were married. We walked in the meadows along the river, and heard the distant

> singing from the church across the river, The mist had not entirely left the river bed, and the colors, the running water, the banks and elm trees were something that one would always remember. 39

Thus the verbal implications of "Far, Far Away" become easily transubstantiated into musical expression. The result is a parallel between visual and audible depth, or for the purposes of this discussion — the concept of aural distancing.

However, Ives' observations amounted in this instance to very much more than just description. His country strolls caused him to ponder upon the acoustical nature of moving and contrasted sound sources. He noticed:-

> . . . in hearing sounds from a distance, that the pitch is changed to some extent. That pitch is not changed by the distance a sound travels unless the sounding body is moving at a high velocity is an axiom of acoustics; that is, the number of the vibrations of the fundamental is constant; but the effect does not always sound so—at least to the writer—perhaps because, as the overtones become less acute, the pitch seems to sag a little.40

Perhaps this accounts for the multiplicity of "impure" octave spellings in his piano writing: where seventh and ninth intervals offer the nearest equally-tempered compromise for distant sounds heard with attenuating overtone colourings. Certainly the sonatas' "balloons" and similar dissonant groupings hint at these possibilities.

Aural distancing has its most celebrated example in Hawthorne (pp.25-6) where the performer uses a piece of 14¾ inch-long board "heavy enough to press the ((black)) keys down without striking.[41] This "gives a kind of sound of distant reverberations that one may hear in the woods under certain conditions."[42] Originally the section had been designed for execution on two pianos, the second one "off the stage or in another room" and "pushing down the ((black clusters)) very lightly."[43] Soon the procedure is reversed:-

> Then, on the third staff, in the third measure, from the eighth group of notes, this is played in the same way on the first piano, but not struck, so that the lower piano part (which becomes louder here) will start the strings vibrating. 44

In this way Ives' earlier intention was to create an aeolian-harp effect produced by sympathetic string vibrations. Henry Cowell too was experimenting with similar ideas in his piano solos.

While the above example shows how practically instantaneous echo effects can be achieved by juxtaposing black and white-note clusters,the composer attempted more complex ways of aural distancing. Attention was applied to close and yet successive placements of often violently contrasting musical syntaxes. By subtly intermingling gradations of dynamic level and between them slotting in syntactical variations, elements of space, "real time" and "Over-Soul time", a synchronous flow of textures could be formulated to produce convincing impressions of sonic fore-, middle- and backgrounds. Passages from the Concord Sonata (p.33,sys.1; p.34,sys.2) put such a procedure into practice where the descending rush of a dissonant scale is abruptly curtailed by the appearance of the Martyn head-motive. Ives says:-

> p 33 (top brace). The first chord in the Hymn, (ppp) is to be played before the ffff chord held with right foot pedal is stopped — as a Hymn is sometimes heard over a distant hill just after a heavy storm. 45

In effect the listener perceives the distant hymn as an eternal continuity, existing in "Over-Soul time" yet temporarily obscured by a thunderstorm passing in "real time." From a constructional viewpoint, Ives juxtaposes two completely different musical syntaxes which momentarily cross-fertilize, with the pedalled resonances as a catalyst. These oppositions are as follows:-

a) Syntax: Atonal runs v. simple tonal triadic functions.

b) Speed: Fast v. Slow.

c) Texture: Horizontal line v. vertical chording.

d) Dynamics: Loud v. Soft. (ffff v. ppp)

e) Range: Wide v. Narrow.

f) Sonority: Pedalled v. Non-pedalled (ie. "wet" v."dry").

In spite of the piano's limited range, timbre and distinctly one-dimensional sound source, the composer makes a most convincing evocation of contrasting space and time continuums. R.S. Perry has noticed linguistic parallels between this particular musical passage and similar devices used by other stream of consciousness artists like Joyce and Faulkner. She says that "Anacoluthon, or the abandonment of one type of construction for one musically different" is well expressed in these few bars. [46]

Finally, an example of distancing occurs in the central Adagio of the Three Page Sonata. Though it predates the completed versions of the other sonatas by at least five years, this particular section is unique in Ives' keyboard literature. Here another set of simultaneities is unfolded: three-stave systems of "real-time" materials moving independently in cross-rhythm are used to express other temporal continuums which again exist conceptually beyond the printed notes. An extended and carefully modified quotation of Westminster Chimes is accompanied by two different ostinatos as supporting structures. It is important to recall that depending on its use, this device elicits varying responses in the listener: when played at fast speed the ostinato gives a feeling of expectancy; taken slowly, one of lassitude; and very slowly, suspended animation. Coupled with this are more secondary concerns associated with treatments of timbre, range, attack and dynamic levels used. But above all, speed is the primary parameter taken in by the ear prior to further psychological interpretations. In this Adagio the second and third categories are brought into play. Neither ostinatos used are traditional: they contain little continuity of pitch area, range or rhythm. Their undulating reiterations scarcely convey any sense of perceived musical development.

The section uses a basic handshape chord of a left-hand filled tenth (i.e. $_{C}G^{E}$) in the lower stave: pitch areas on, or in close proximity to this chord-set act as a kind of constant yet pitch-variable accompaniment. Above is superimposed another changing ostinato on chord-mixes of perfect fourth or tritone intervals "with their roots unfocused (like a bell's unusual harmonics)."[47] Crowning this is the upper stave with the score indication "Better to have another player or bells—celesta on top": here, in outline at least, is Ives' curious rendition of Westminster Chimes. The whole Adagio is presented in a manner resembling the gradual pitch fall of an unwound acoustic gramophone record, but with its speed remaining constant. Cross-rhythm organization within the three-stave systems is complex.[48] It strongly relates to similar kinds of mensural permutations used earlier in From the Steeples and in the accompaniment to the closing bars of the Piano Trio.

In order to achieve aural distancing and an impression of otherworldliness, Ives treats the three-stave strands as three contrasts in range-area and rhythmic permutations: the bass arpeggio figure hovers around three low pitches; the middle stave oscillates between two pitch-clusters undergoing extensive rhythmic and intervallic changes; the upper stave with the "tune" loosely corresponding to pitch area $C^{E}{}_{G}{}^{D}$, gradually descends, and again is subject to intervallic modifications. The curious effect of this slow movement appears to be an attempt by the composer to capture the ambiences, both sonic and associative, of three casually chiming peals, or clocks of different sizes which, though striking in adjacent rooms, are heard in close proximity by the listener.

Ives' evocation of everyday spatial, temporal and spiritual experiences as the above examples have shown, unfolds in "real time" when performed on the piano. Such realization transforms

these "sensations" into a graspable meaning, giving rise to subjectively perceived time continuums: some are momentary, others more extended or cyclic. Hence,the composer's intention is to promote some sense of evolving psychological interpretation. His frequent call for active rather than passive listening demands a kind of selective intellectual appraisal in order to sort through the associative possibilities implicit in the music presented. In the following passage he offers a simple visual analogy for this type of appreciation:-

> As the eye, in looking at a view, may focus on the sky, clouds, or distant outlines, yet sense the color and form of the foreground, and then, by observing the foreground, may sense the distant outlines and color, so, in some similar way, the listener can choose to arrange in his mind the relation of the rhythmic, harmonic, and other material. In other words, in music the ear may play a role similar to the eye . . . 49

Enigmatically though, Ives expects his listener to bring into play both intuition and yet more deliberate acts of choosing.

g) SUMMARY

Ives received his early acoustical knowledge through observing his father's often unusual experiments. He soon began to conduct his own investigations into sound both as a natural and scientific phenomenon. Through empirical enquiries consolidated by his reading of Transcendentalist writings, some of which emphasized an implied "musicality" in the simplest of vibrational ratios, he formulated original ideas for the careful manipulation of sonority in his developing style of piano composition. Being attuned to the kinds of variably intonations heard in folk performances this awareness, together with his own examinations of microtone effects, promoted an interest in using traditional musical notation to record microtonal inflections with different enharmonic spellings: these would act as visual cues for performers to strive conceptually towards

minute pitch variations. Such theories evolved through Ives' observations of the inharmonicities of bell sounds. This, coupled again with his own Transcendental concept of spiritual "resonance" symbolized by the bell, caused him to enlist the traditional device of the ostinato and rejuvenate it into a new structural foundation for inclusion in areas of his piano writing. By applying it to the instrument's one-dimensional sound source, limited range and timbre, Ives began to formulate compositional methods which produced the impression of aural distancing and the presence of two or more contrasting time continuums: one existing in the "real time" of the present, and the others of an indefinable and philosophical nature associated with his beliefs. The result was a pianistic language which acted as a metaphor for the human and spiritual simultaneities of existence. The successful implementation of these aims and procedures underlies much of the experimentalism in the mature piano solos.

References.

1. Eiseman, "George Ives as Theorist." Article in Perspectives of New Music, Fall/Winter 1975, vol.14/1, pp.139-147.
2. Ives, Memos, p.47.
3. Eiseman, op.cit., p.145.
4. Ives, Memos, p.237.
5. Cowell and Cowell, Charles Ives and His Music, p.19.
6. Ives, Memos, p.48,n.3.
7. Ives, Essays Before A Sonata, p.111.
8. Ibid., p.110.
9. Mellers, Music in a New Found Land, p.176.
10. Ives, Essays, pp.110-111.
11. Ibid., p.111.
12. Thoreau, Walden, p.87.
13. Ives, Essays, p.249,n.37.
14. Ibid., p.116-117.
15. Ives, Memos, p.96.
16. Ives, Memos, p.187,n.2; Concord Sonata, p.55,sys.3-before double bar line.
17. First Piano Sonata, p.9,sys.4. and p.27,systems 1 and 2.
18. Ives, Essays, p.84.
19. Ibid.
20. Ibid.
21. Ives, Memos, p.189.
22. Ibid., p.189-190.
23. Backus, The Acoustical Foundations of Music, 2nd edn. p.150.
24. Ives, Memos, p.189.
25. Ibid., p.195.
26. Ibid., p.187.
27. Ibid., p.190.
28. Backus, op.cit., p.158.
29. Hitchcock and Perlis, An Ives Celebration, p.139.
30. Ives, Memos, p.204.
31. Ibid., n.29.
32. Hitchcock and Perlis, op.cit., pp.139-140.
33. Three Page Sonata, editor's notes to 1975 edition.
34. Concord Sonata, p.61,sys.5.
35. Ives, Memos, p.191.
36. B♭=7th harmonic, F♯=11th harmonic, G♯'=13th harmonic; all are flatter in sound than as represented in traditional note spellings.

37. Concord Sonata, notes to the 2nd.edn.
38. c.f. First Piano Sonata, fifth movement, Andante Cantabile, pp.44-45.
39. Ives, Memos, p.87.
40. Cowell, American Composers on American Music, pp.194-195.
41. Concord Sonata, notes to the 2nd.edn.
42. Ives, Memos, p.81.
43. Ibid.
44. Ibid.
45. Ibid.
46. Perry, Charles Ives and the American Mind, p.52.
47. Hitchcock, Ives, p.45.
48. Ibid.
49. Cowell, op.cit., pp.193-194.

CHAPTER SIX

THE TAKE-OFFS & STUDIES:

EVOLUTION AS STYLE

a) ORIGINS & SOURCES

The two sonatas together with the earlier Three Page Sonata are the most well-known of Ives' piano solos, if only because they have been readily available in published form for over thirty years. However, their diverse approaches to composition would not have been possible without the existence of a large number of preliminary studies. These offer a detailed guide towards Ives' methods of working, as applied both in his keyboard writing and more experimental projects for chamber and orchestral forces.

Besides those works prepared in short-score form, there are many manuscripts which suggest that the composer embarked upon the construction of a set of solo studies designed both for virtuosic display and as a way of working through a wide compendium of pianistic ideas. In addition, John Kirkpatrick has named a group of Five Take-offs: also in study form, their musical intentions are strongly satirical and often iconoclastic. While these pieces are a coherent and legible collection offering few editorial problems, the Studies exist in varying states of completion, fragmentation and disarray.

Of these, only four of the studies have reached publication: Henry Cowell issued #22 in 1947, with #9 - The Anti-Abolitionist Riots and #21 - Some Southpaw Pitching in 1949; John Kirkpatrick brought out his own edition of #20 in 1981.[1] However, as long ago as 1967 a large number of these unknown works were ambitiously reconstructed and recorded by the American pianist and scholar Alan

Mandel.[2] His realizations are remarkably accurate when compared with copies of the composer's original manuscripts. For the purposes of this research Professor Mandel has very kindly allowed scrutiny of his own performing editions: these have proved an invaluable guide towards unlocking the often ambiguous intentions contained in Ives' frequently illegible pencilled scribblings. The numerical identifications of individual studies are sometimes conjectural: John Kirkpatrick's most recent listings[3] do not always correspond with the numberings used on Alan Mandel's recordings. Accordingly Table X overleaf gives full documentation of the Take-offs and Studies in order to avoid wrong identification.

While the Take-offs were written between the end of 1906 and New Year's Day 1907,[4] dating of the Studies covers the period 1907-09;[5] though even this is open to doubt. These years span one of the most experimental and fruitful times of Ives' musical development: aside from his production of many chamber pieces, he was also thinking of putting together a set of orchestral works collectively called "Men of Literature." These were to act as musical commentaries on the lives and attitudes of Browning, Emerson, Hawthorne, Whittier, Beecher and Arnold. Only the Robert Browning Overture (1908-12) ever reached completion; those on Emerson (1907) and Hawthorne (c.1910-11?) and conceived as concertos or overtures with large obbligato parts for solo piano exist only in incomplete form. Certainly the first three movements of the Concord Sonata came about as reprocessed and redeployed sections from larger projects which had been left abandoned much earlier.[6] Of these Ives' most complete source came from his Emerson Overture/Concerto. This offers the nearest clue to the genesis of the Studies and smaller pieces, a high proportion of which contain a range of musical items from mere fragments to whole chunks lifted from the

TABLE X: TAKE-OFFS & STUDIES: DERIVATIONS & SPIN-OFFS.

The Take-offs. (Composed: end of 1906 to Jan.1st, 1907).(frame nos:4774-9)
Photostat negatives: q1763-6; q1813-4.

i) "The Seen and Unseen, Sweet and Tough."
ii) "Rough and Ready."
iii) "Song Without Good Words."
iv) "Scene Episode." (cf. 1st Piano Sonata p.44,"Adagio" section).
v) "Bad Resolutions."

The Studies. (frame nos: 4780-4827)

#1 incomplete.

#2 Andante moderato/allegro molto (cf."Centrifugal Cadenza #2"and recording of"Improvisation Y). q1682-3,1784-5; Q5014.

#3 lost.

#4 ((allegro moderato?)) ; incomplete.

#5 Moderato ((con)) anima q1786-91

#6 Andante ((renumbered #14)) q1791-92

#7 Andante Cantabile ((renumbered #15)) q1792-93

#8 Trio: Allegro moderato-Presto.(cf."Waltz Rondo", recorded"Improvisation Z", "Hawthorne"? score of"Browning Overture" bars 107-40? q1793-95

#9 "The Anti-Abolitionist Riots." (cf."Centrifugal Cadenza #1").

#10-18 = ? lost. Possibles being:-

((10)) beginning lost, last half line only.
((11)) andante-lost;related to"Emerson Overture"?(cf.Ives'recorded fragment)
((15)) I (cf."Browning Overture"?) (Mandel conjectural edn.) q1807-8.
((16)) II (1st line only). Quotation of "Home Sweet Home."
((18)) Sunrise Cadenza;incomplete;(cf"Piano Trio" b.204+ q1763.
((19)) untitled sketch, amorphous study in major and minor intensities.

#20 ((March:)) slow allegro/fast andante. See published version.

#21 "Some Southpaw Pitching." See published version.

#22 Andante maestoso/allegro vivace See published version.

?#23/#18 (Kirkpatrick/Mandel numberings). (cf."Centrifugal Cadenza #4? or "Baseball Take-off"?: Ives' recorded fragment? q1809-12;q1536.

#27 "Chromatimelodtune" (published reconstructions of this sketch).

N.B. Photostat negative numbers (n/q/y/Q etc.) are only given when used for identification in the body of the text. For instance:-
q1809 / 4819 (ie. negative + photostat copy frame number).

Additional information is to be found in the John Kirkpatrick Catalogue of Ives' complete manuscripts pp.96-99.

obbligato parts of this larger work. Its four "centrifugal cadenzas", freely rhapsodic areas of solo writing, contribute to sections of #2 and #9: there may be connections with #11 and #18/#23 as well. Certainly the Four Transcriptions from Emerson (?1917-23) are further reassessments, as are some of Ives' later recorded improvisations.

In comparing the manuscript copies of all three Emerson sources (the sonata movement, studies and transcriptions), it will be seen that there are very strong correspondences between the materials used: cross-referencing of three and four-note cells, figurenlehre constructions and chord chains can be found everywhere. Despite these derivations there are also many areas of musical invention which cannot conclusively be labelled as self-borrowed. Such features exist in themselves, even though they might bear certain similarities with sequential passages or bell effects which happen to be used in the Second String Quartet, or in any other contemporary works for that matter.

The Take-offs and Studies display an incredible range of experimental writing and approach to performance: the piano becomes a sketchpad where innovative formal schemes develop out of the many compositional traits which have already been examined. Whether the constituents of these pieces are rigorously structured or just loosely thrown together, the composer's wry sense of humour is nearly always in evidence.

b) SYSTEMS & CYCLES

One of Ives' favourite quotations from Emerson was, "Nature loves analogy and hates repetition."[7] It reflected a wish for self-expression which was neither habitual nor hide-bound. The composer's interest was invariably in fleeting or transient musical ideas. There are however, a few works which illustrate his expertise at using carefully developed structures: the serialized pitch and rhythmic

durations of From the Steeples and reconstructed form of sketches to study #27 called Chromatimelodtune for example.[8] But in his piano writing the application of strict procedures to one or more of the parameters normally appear as discrete sections which are incorporated into heterogenous style. When such areas occur, Ives labelled these as "cycles" of unfolding events. This can be seen in the virtuosic obbligato to the chamber piece In Re Con Moto Et Al (1913) made up from "old piano cycle rhythm studies" which "grow, expand, ebb, but never literally repeat."[9] This sense of growth, often away from a central point, concurs with Ives' favourite use of the word "centrifugal"; alternatively a centripetal movement - tending towards - is also considered, though not always. At the level of overall structure, the kinds of palindromic sectioning ABCDEDCBA+ coda in study #20 show an interest in temporal recall, where steps are retraced to initial points of musical conception. Contemporary with this and already mentioned, the song Soliloquy not only employs palindromic durational series moving horizontally, but at its central climax brings vertical interval-wedge textures into play. Clearly this is a logical extension of juvenile ideas effected really in the terms of a piano study with added vocal obbligato.

The nearest that Ives' keyboard writing ever came to a systematic use of materials can be seen in study #5. Its diversified applications of free serialism may be explained by just two comments from its host of marginalia:-

> Keep it up, old man! Hard work on the Front - no easin up - A man's job regardless!!
>
> To Strengthen & give more muscle to the ear, brain, heart, limbs & Feat! - atta Boy - (a friend with 2 more hands may join in). Never mind the Pansy Ears a-lolling in the box . . . 10

This study's complexity is designed to mimic the academic musicians that Ives so despised, and in terms completely unacceptable to them. Written as a virtuosic moto perpetuo in dense four-part counterpoint

with a short chordal section offered for temporary respite, its uncompromising atonality and arhythmic accentuation precludes the composer's more usual employment of phrasings which ebb and flow in Romantic fashion. Most of the piece is built from a set of serial canons whose note content is hardly stable; only rarely do mirrors or retrogrades appear. Rows are scattered about the quartet-type lines in a wide variety of intervallic displacements and imitations. Surprisingly, even in this work it is impossible to record consistent trends in construction. Hence, the following are treatments of the greatest interest:-

Canon: Starting 156th (crotchet) beat in left hand, followed at the 5th in the right hand (157th beat). The outer parts move against the inner ones in mirror fashion.
: Beat 168, mirror canon between top and bottom lines.

Chromatic Transpositions:(i.e.semitones become M7th or m9th intervals).
: Rising in the bass at beat 23 through to beat 38.(cf.beat 43+).
: Falling in the bass at beat 38 through to 42.
: (cf. section, bars 32-39 in the Waltz Rondo).

Fixed Interval Areas: beats 8-22 in 5ths (left hand).
beats 22-35 in 4ths (right hand); beats 40-54 (r.h.) in 4ths + handshape stretch to encompass 7th/9ths.

Note Rows: beat 42+ (l.h.) two 11-note repetitions.
beat 55+ between the outer parts.
beat 65+ two rows in the bass (parallel 4ths).
beat 255+ 12-note in top part.

Interval Wedges: (i.e. expanding and contracting textures).
beats 217-221 and similar at 289-293.
(cf. constructions in Soliloquy).

Handshapes:Converging = beat 299-300½ (cf.1st Piano Sonata p.12.sys.4).
Diverging = 301-303 to end(cf. Ibid. p.8.sys.4).

Resonant Chords: 303 and 308-end. (resolves to bitonal triads).

The presence of only seven barlines, none of which imply any kind of downbeat emphasis, may be a satirical addition by the composer.

Certainly it is up to the performer to decide on his own points of stress, phrasing and dynamic contrast. While much of this work is expressed as a headlong rush of contrapuntal dissonances, the table above shows that towards the end Ives constructs wide-ranged keystones of chordal wedges built from handshapes. These culminate in four aggregates made from superimposed sevenths and then ninths (ex.1).[11] This brief area of consistent intervals gives this passage some sense of tonal identity and climactic effect, if only because all previous material presented has been made from such variable note relationships. Following this at beat 229 the horizontal flow is reinstated until the resonant chords which end the work. The study's sadistic humour is not only conveyed by the performer having to constantly throw his hands over the keyboard's central five-octave range, but also by the fact that a second-time bar is marked near its close for the whole process to be repeated. In addition at beats 245-264, amid all this welter of muscle-bound activity, the manuscript contains a tied G in the alto line which is to be held for nineteen-and-three-quarter beats before resolving onto an F♯. Either this is Ives' way of giving his note "a rest", or indeed it may be an indication that this piece could have been originally intended for performance by quartet forces; certainly the consistent four-part textures point towards this possibility.

Contrasting with the capricious pitch serializations in #5, Alan Mandel has identified and named a Baseball Take-off which gives a simple demonstration of Ives' approach to the organization of rhythmic cycles. Applied in terms of a durational palindrome, it runs in accelerating and decelerating beat divisions. As a metrical basis, alternating crotchet sevenths and ninths march back and forth in the left hand. In the right, "manly" arpeggios of transposed chromatics are progressively subdivided per beat at increasing speed. At bar 11 the

whole process runs in reverse until the manuscript indication, "a knockout chord—play with BASEBALL BAT." A similar section appears in the obbligato to In Re Con Moto Et Al between bars 50-3: from this point to the end of the work, note-row repetitions are derived from the original metrical idea.[12] However, in Mandel's fragment the cycling is extended: 4/4 crotchets are subdivided in the series 2-3-4-5-6-7-8-9-10-11-10-9-8-7-6-5-4-3-2 with the 11-division forming a central apex. This type of mensural game has its basis in Ives' improvised "stunts" and may have provided cadenza material for part of his Emerson Concerto.

A freer application of cycling appears in study #15 where systematized chordal material is placed alongside areas of romantically-styled phrasings. In the manuscript's central section marked "B"[13] Ives takes a cycle of up to twenty-four different major and minor triads and places them as a chord series within the texture. Sometimes all twenty-four are used; at others, and quite arbitrarily, only twenty appear: these are marked carefully with crosses in the original. The study's aim is to test out the bitonal and polytonal possibilities of two and three chordal and melodic strands which are juxtaposed in parallel, oblique or contrary-wedge motion. In addition, running semiquavers in four-note figurenlehre groupings also based on triadic units (5/3,6/3 and 6/4 shapes) are given an auxiliary dissonance to produce an indefinite sense of key: often these figures are separated by slow chromatic riffs used to further disembody the tonality. Taking the moving triads as the focal point of musical interest: these are exchanged between hands, as are the accompanying figures. It is curious that the triadic chains are not ordered in any serial fashion as the study unwinds. Instead Ives employs chord placings which are determined more by calculated gradations of moderate dissonance between triads and

runs in each hand (ex.2). As a rule the bitonalities chosen are separated by a third; this ensures that two of three notes in each chord retain a semitone clash between hands(as for example r.h. C♯-minor versus l.h. B♭-major or, r.h. F♯-minor v. l.h. E♭-major). This idea contrasts strongly with much more systematic organization tried out earlier in the Harvest Home Chorale No.2 (?1901) which uses a cycle of chords moving in a harmonic circle.[14]

Ives was wayward in his serial treatments: the ordering of durations interested him more than the possibilities of pitch organization. With the latter, other than on the rare occasions given above, he simply chooses to avoid too early repetition of a particular note until at least six have passed by. Ruggles, as previously mentioned,was certainly more vigilant on this point. Ives' often arbitrary attitude is well demonstrated in the Allegretto, quasi andante near the beginning of study #21 Some Southpaw Pitching. With the left-hand part commencing on a series of eleven different pitches followed by their retrograde(ex.3), it could be construed that such a row offered further possibilities for ordering. Yet this is not the case: instead, Ives loses interest and adopts freer procedures which have more in common with the accompanimental exchanges discussed in #15 above. Again in #21 the manuscript[15] contains pencilled-in chord indications for figurations based on major and minor triads whose key implications are occluded by extraneous semitones:[16] these scribblings too are only intermittently placed. The composer is much more absorbed with giving the "southpaw" an exhausting pianistic workout through the rapid exchange of varying handshapes, and areas of chosen intervallic leaps. Physical fun still takes precedence over intellectual rigour.

c) NEW TREATMENTS WITH SEQUENCES & TEXTURES

While the hallmarks of Ives' mature style are represented by empirically derived elements embracing a wide variety of serial, textural and formal procedures, his melodic lines continue to maintain strong connections with nineteenth-century traditions. This is shown in the way that he builds upon old ideas of shapes which move in contrary motion. Using these as an inspiration towards a broader and less specific concept of widening and narrowing, they are then applied to other areas besides melodic movement such as intervals, durations, dynamic levels and even implied three-dimensional space. Excepting those examples previously cited, tonal features of phrase gesture and development treated sequentially occur in most of the atonal writing. Looking at sequencing in Ivesian terms, a modified definition should be used: contrasting with the traditional deployment of tonal and real sequences, the composer employs short patterns of melodic, rhythmic or chordal movement which frequently repeat only as approximations of their original shape. As a composition unwinds these appear either as small cell-like figurenlehren, or in more extended fashion as interlocking arabesques of texture which soar and plunge. In this sense, when these textures move against each other in contrary motion, they too correspond with Ives' ideas of centrifugal and centripetal movement relating to a central point of focus.

Parts of the Second String Quartet have been shown to use these sequential wedge formations. However, study #8 translates them into pianistic terms. It is aggressively iconoclastic and makes full play with the virtuosic possibilities of whip chords, expanding and contracting pitch ranges, or more central areas of frenetic activity. There is evidence to suggest that this piece contributed to piano sketches for the Robert Browning Overture where there is

mention of a pair of studies (also named #8 and #9) constructed as a "chromatic leap around the block";[17] though there is little resemblance here. #8 is in two sections: the opening Allegro Moderato is chordal, static, and full of whip-chord swipes; the remainder constituting the main body of the work, is a toccata which rushes up and down the keyboard at top speed. The whips, dutifully sitting on bass notes D, G and A are appropriately dubbed "Doh!" , "Fah!" and "Soh!" respectively; this automatically emphasizes the serious tonal intentions of the piece (ex.4). Presumably such musical cussing again relates to Ives' ragging days as "The Dasher": similar chords appear in the Waltz Rondo[18] and the late recording Improvisation Z. The presto toccata "starts as soon as possible after ((the)) last chord is hit be it Doh, Fah or Soh - so!"[19] It is followed by the hands rushing away in contrary motion from the centre of the keyboard. Throughout, chromatic four-note figurenlehre in BACH-fashion alternate with other handshapes which expand and contract; then the textures converge once more to land on a whip-chord, the first of many which punctuate this study. Only rarely does the sequencing draw upon predetermined intervallic shapes: at one point as the right hand ascends in thirds against a left-hand descent in atonal figures;[20] at another, right-hand chords in fourths are pitted against doubled fifths (i.e. filled ninths) in the left.[21]

A particularly interesting use of sequencing appears in Take-off No.2 Rough and Ready. Yet another tour-de-force in wedge textures, handshapes and cross-rhythms, it mimics Mark Twain's "Jumping Frog of Calaveras County", with the "Frog part played by the Thumb . . .."[22] The form of this piece is curiously assymetrical, starting with an allegro and moving through sections in the order ABBCABC + coda. Aside from fast melodic and chordal lines with

thumbed seconds for the "frog" part, the most original feature of this work occurs near its beginning at the 2/4 section of bars 8-22 (ex.5). Here a vast wedge of sequences converges towards a central point: the left hand rises chromatically in atonal groupings of semiquaver quintuplets; in opposition to this, the right hand falls in whole-tones, with sequences of eight semiquavers with every fifth one accented. Thus, while left-hand accentuation is quite regular, that occurring in the right only coincides on every five-crotchet-beat grouping. The sonic effect is quite extraordinary, with both hands unwinding in different rhythmic continuums. The study's closing section, from its final repeat to the end, introduces a football tune moving in mirror inversion between hands: another example of wedge-shape oppositions, this time from a vertical point of view.

It is often difficult to assess the extent to which Ives' use of atonal sequencing and contrary motions were determined by either pianistic trial and error, or the working out of these possibilities on manuscript paper. In the closing bars of Take-off No.4 Scene Episode for instance, there is a converging wedge of inverted intervals placed between each hand at bars 19-20 (ex.6).[23] This structure, based upon strongly pentatonic shapes, could have been easily improvised at the piano. Conversely, an abandoned sketch to study #19 (sic?)[24] shows that there were times when the composer worked on these ideas quite systematically at his desk (ex.7). This open-score fragment is based upon the complex inter-penetration of thirds which converge into a progressively thickening texture.

These two examples again show the problems of accounting for the exact nature of Ives' working methods. Sometimes, as in the early experimental sketches, musical hunches were tried out

in notation and freely transferred to the keyboard. At others, a reverse procedure was quite possible: improvised figurations were consolidated into structures, and then worked out more rigorously on paper. All these products evolve from the inevitable academic and popular cross-fertilizations which make up the composer's mature piano style.

d) COMPARISONS: TONAL VERSUS NON-TONAL

With the clear exception of study #5 an intrinsically mixed tonal-atonal language occurs throughout the Take-offs and Studies. This constant vacillation between apparently conflicting styles is, in a few solos, raised to the level of biting satire and delivered as a kind of didactic musical essay. It has been shown that Ives enjoyed sprinkling his scores with extraneous dissonances for a variety of humorous, acoustical and associative reasons. But there are some examples of his writing which demonstrate a kind of tonal-atonal rapprochment within the confines of a piano solo.

At a purely childish and superficial level this appears in Take-off No.5 Bad Resolutions and Good. As a nine-bar burlesque harmony exercise it is a vicious satire on the types of pastiche tasks that he had to do at university. While the first even bars, marked "Bad", contain a series of functional SATB progressions showing all the pitfalls of poor partwriting and over-indulgent chromaticism, their hymn-like solemnity is shattered by a massive cross-hand whipchord collapsing chromatically inwards to an open C-chord at the close — a "Good" resolution. The listener is left in no doubt as to Ives' opinion of textbook harmony: in the passing of only nine bars such rules are trampled underfoot.

Take-off No.1 The Seen and Unseen-Sweet and Tough approaches problems of consonance with a great deal more subtlety; any satirical intentions here are either veiled or ambiguous in nature.

Again inflated chromatic progressions are presented in slow gospel-hymn style. After four introductory bell chords, more consonant versions of those appearing at the beginning of #8, the main tune is revealed. This rises and falls in what Ives seems to mimic as the embodiment of Romantic melody; yet, it is supported by an incongruous succession of tonal and atonal chordal harmonies (ex.8). The "seen" elements of tonal consonance, with their attendant auxiliary notes and chromatic embellishments, soon become submerged amid a host of "unseen" added notes, bell shadows and gentle clusters: these mask or subvert the melody's tonal implications. All this amounts to an unnerving kind of stylistic inconsistency: the beautiful in nineteenth-century terms is debauched by the "unseen" of experimental endeavour. Example 9 shows these tonal-atonal juxtapositions. A passage using a similar effect appears in the First Piano Sonata at movement IIB "In the Inn" (p.18,sys.5/ bb.119-121). where consonant chords are treated as a diverging set of textures between the hands.

Another piece, though making more perceptible use of bell sonorities and shadow notes is Take-off No.3 Song Without Good Words. Here the romantic line is more fragmentary, and the end of each phrase gently interspersed with soft dissonances. Ives is very much taken up with the acoustical ideas and resources discussed in the previous chapter. The take-off's final chord which is built upon a pedal C also contains the seventh and eleventh harmonics of A# and F#(ex.10). Perhaps this acts as a home base for Ives' theories of "nature's vibrations."

Elements of tonal, atonal and serial ideas merge within the polytonality of study #7. This is a complex web of three strands which progress in contrasting keys: the upper stave in C, the middle in G♭, and the lower in G all move along in loose ostinato order.

While the top part's meandering melody is confined to the tonal ambiguity of moving tritones, those underneath interweave and subdivide the basic 4/4 pulse into 12/8. Again any clear key sense is prevented by the placement of intrusive but gentle dissonances within the textures. The wide pitch ranges employed, and a not infrequent tendency for the lower two strands to move in contrary motion, help maintain the dreamlike feel of this beautiful piece. There are only intermittent applications of serialism: six to twelve-note groupings appear in the bass line at the end of the study.[25]

The tonal neutrality of superimposed fourth intervals is also used to great effect in study #6. Based upon fragments from Bethany, a hymn quotation to appear later in the Second Orchestral Set, its watery implications are emphasized not only by the atonality of the semiquaver quintuplet accompaniment, but in the way that Ives exchanges materials between each hand in every successive bar. The impression created is that of a call and response dialogue from terrestrial and subterranean climes. A careful choice of running figurations which avoid too early repetitions of the same note help maintain the neutral tonality. As the study unfolds, gentle shadow-notes sound above and between the interweaving textures. Here and in the pieces discussed above, Ives uses the image of tonality as a constant point of reference, even if it is a feint one.

e) IMPROVISATIONS & FREE FANTASIES

The apparently limitless compositional variables afforded by reassessing pitch, texture, range, duration and dynamics, in Ives' opinion

> gave the ears plenty of new sound experiences—it strengthened the ear muscles, and opened up things naturally that later were used naturally and spontaneously—that is, without thinking of it as "this chord" or "this way"—good, bad, or nice! 26

And so, in progressively building up a new style through keyboard trials and notating his discoveries, Ives' deliberations were to turn towards musical concepts which were both open-ended and self-perpetuating.

The Emerson Concerto's three surviving "centrifugal cadenzas" illustrate such wider aims; those which embrace some sense of performance freedom. The composer's private recordings in the '30's and '40's bear out this viewpoint: they recapture his continuing arbitrary approach to execution and interpretation. Many relate to the above concerto and to fragments from the one inspired by Hawthorne's image. In addition, these performances borrow parts of the Concord Sonata 1920 edition and use them as a kind of creative springboard towards the in situ realization of improvised fantasies. The Improvisations X, Y and Z are the freest expression of these pianistic flights of imagination: they sound like surviving remnants from some lost musical canvas.

The virtuosic freedom of the "centrifugal cadenzas" is not only conveyed in the late recordings, but also appears in more tangible form within studies #9, #2 and #18/23. #9 the Anti-Abolitionist Riots places Emerson-derived ideas in its early Allegro section: these materials are given further free development and evolve into a kind of notated improvisation. While the study's opening Adagio maestoso is based on what seems to be an original motive—a musical "sigh",[27] the following Allegro strongly mirrors the style and spirit of the Concord Sonata's first system. However, from this point onwards there is a departure into drum-chord pounding used later in Improvisation Y.[28] Towards the close of the study there is a return to Emerson ideas with an extension of Beethoven's "Fate" motive into reiterated chords of piled fourths. In adopting and occasionally borrowing features of the sonata's material for

freer treatment, it can be seen that while study #9 begins and ends with strongly defined materials, its middle section moves into less stable flights of fancy where bugle calls and drum handshapes are used to punctuate the sonority of the underlying cluster chords. Before its close there appears a curiously indistinct theme: as textures plunge into the bass a plaintive motive $^{G}_{Gb}$ $_{A\#}F$‿ recalls "Adieu, Adieu . . . " from the composer's setting of Byron's A Farewell to Land (1909).[29] Extramusical connotations may also exist in the musical "sigh": Ives' own recording of the study extends the introduction by repeating this little cell sequentially into the upper reaches of the keyboard.

Study #18/23 makes even further use of self-borrowed ideas: it contains references from both Emerson and Hawthorne materials as well as ragging experiments from the First Piano Sonata. Though Alan Mandel's reconstruction adheres as far as possible to the original, much of Ives' manuscript is both feint and rather sketchy as to features of rhythm and formal construction; also, its three pages show wide variations in handwriting style. Taking the Mandel edition as a guide, this study contains all the hallmarks of Ives' mature piano writing: improvised and borrowed materials are mixed and presented with gay abandon; bugling, drumming, wild runs and arpeggios all appear in quick succession. The bitonal trio on"Hello My Baby"is exchangeable with that from Central Park in the Dark.

The composer's treatments of the study's limited number of musical events, some retrieved from "centrifugal cadenza #4", is a good indication of how improvisatory ideas were cobbled together into a coherent creative whole. There are features here which recur in Ives' recorded performances on fragments relating to this work: the use of an introductory fanfare for instance, based on "Taps" (ex.11). The Piano Trio finale also starts with this motive

as a stirring call to arms; but its customary fourths are soon piled up vertically into a wide chordal structure from the keyboard' central point. The study continues with scale activity: the right hand is chromatic and the left diatonic; upon repetition these are displaced into demisemiquavers and semiquavers respectively. Both fanfare and runs give way to a further static component, a left-hand ostinato not unlike that used in the Baseball Take-off. It forms the support for a romantically-styled melody starting in fourths, then harmonized in thirds and strongly "Emersonian" in derivation. Ives builds up a feeling of anticipation by progressively elongating this fragmentary material, and increasing the tempo towards another area of stasis; again baseball-cadenza ideas are brought into play. The Allegretto con moto drum passage which follows leads immediately into "Hello My Baby": this is successively ragged and melodically dislocated until total compression reduces it to merely a reiterated two-note scrap of the original. Again such repetition and rotation of minutiae automatically carries expectation through to another musical event: a bitonal vamp from movement IVA (p.30.sys.4 to p.31.sys.1./bb.36-51) of the First Piano Sonata. After a linking bar built from fifth-chords, there is a further extension of "Taps" presented as a bitonal dialogue between the hands (i.e.l.h. in E♭ and r.h. in A). Here the fanfare is put into the central pitch area and replaced by drumming at wider extremes of range. Arpeggio games follow, with cross-hand whipchords which eventually dissolve into bitonal runs down the keyboard to its mid point. Here "Hello My Baby" is finally whipped over in left-hand thirds to upper reaches. As a fleeting reminder of the study's most important events, a coda is tacked on the end: this gives the runs, the quoted tune, and the opening fanfare.

Study #18/23 shows admirably how Ives, by setting his sights on

a limited selection of creative variables, could exploit and extend their many musical possibilities into the form of a notated improvisation. This work displays areas of activity which are either traditionally developmental in terms of additive phrase structuring, or in contrast, are inactive, static and underpinned by ostinato or vamping patterns of little melodic importance. In fact, all these different sections could easily be shuffled like a pack of cards, and the whole lot presented in a kind of free moment form. Similarly, elements which make up the three recorded improvisations could be reshuffled in just the same way.

Though Ives' private recordings were made long after he had ceased to compose, they show a continuing obsession with ideas taken from the Emerson Concerto and other abandoned pianistic projects. Study #2, again from a "centrifugal cadenza", is another solo which appears casual in construction: using the "human faith melody" from Emerson as a point of departure, it soon launches into improvised drum and whipchord routines. The composer, in employing an initial melodic inspiration, soon loses interest and moves into other areas of musical exploitation. In fact in the body of this work there is only a fleeting return to Emerson ideas presented in the form of a loose fugato entry resembling that from the Concord Sonata (p.13,sys.4).[30] But drum and fist-chord treatments interposed with intervallic areas are its real intention. Though less sectionalized than #18/23, study #2 could also have a redistributed order of musical events. It too has a freer partner in the recording of Improvisation Y, where drumming shapes and a similar improvised fugato are important constituents of the composer's performance. Both study and improvisation have many features in common, with chromatic runs, chords on piled fifths and mystic bugle calls which sound off into the distance; all emerge from the closing

resonances of a pedalled cluster. On his recording Ives feels that he has botched the ending and utters an indignant cry: "Dash — my fingers slipped there!" Despite this dissonant apotheosis the composer obviously knew exactly what he had intended to play, even though he was drawing inspiration from musical ideas dreamt up long before.

In contrast with those studies which clearly relate to the Emerson Concerto, there appear to be very few surviving manuscripts from the proposed Hawthorne Concerto. However, it may be that Ives salvaged materials from this work also. Though the Concord Sonata's Hawthorne movement is the first complete expression of this biographical idea, and finds further exploitation in the obbligato to the Fourth Symphony's second movement and its offshoot fantasy the Celestial Railroad (1924-5?), earlier representations occur in parts of study #8 and the Waltz Rondo. Besides sequential and wedge structures previously dealt with, Hawthorne-type figurations, routines and chordal arrangements featured in #8 form a major contribution to similar treatments in the later sonata movement. Correspondences between both works are:-

	Study #8.	Hawthorne movement.
Areas of consecutive fourth intervals	q1795/4797 LL.12 & 13 (r.h.+l.h.)	pp.22.sys.5-pp.23.sys.1. (r.h.parts).
Stretched and contracted handshapes	q1795/4797 L.9. (r.h.)	p.46-p.49.(r.h.)
Chromatic and diatonic runs	q1795/4796 LL.10-11	p.21.sys.4;p.34.sys.1+2.
Sequencing in thirds	q1794/4795 LL.6+8	p.35.sys.1,end bar.
Figurenlehren (BACH etc)	q1794/4795 L.2+ L.4 etc.	p.48.sys.5,small notes in alto part.
Chords & figures from Browning Overture	Doh/Fah/Soh chord section(?)	p.48.sys.5 = combined sonorities produce chordal effect.

As this table shows, the Hawthorne movement contains an excellent mixture of carefully arranged study materials; and like #18/23 it is interspersed with improvised elements and presented as a fantasy. Features of free construction develop from chosen pitch areas, handshapes and lines which rise and fall; all are interpolated with atomized fragments from the sonata's main themes.

Ives' most pianistically volatile writing is to be found in the Hawthorne movement's closing section (p.46,sys.4 onwards). Its unremitting ferocity is a reminder of the similarly frenetic and extemporary style of the "centrifugal cadenzas"; perhaps he had such passages in mind for his Hawthorne Concerto. Any thematic inferences here are greatly subordinate to the flood of routines and figurations that determine the movement's inevitable course. Preordained elements appear as afterthoughts amid an atonal mass of impromptu ingredients. This section, together with Ives' 1938 recorded improvisation on parts from Hawthorne, contains a similar whirl-wind of fragmentary materials. Had he recorded the movement's final pages, it is likely that in playing it through, new areas of musical discovery made during its execution would have revealed a different ending from the printed original. Hence the composer's frustration at having to "freeze" an unconscious stream of improvised ideas into notation.

f) FUSIONS: HYBRID STYLE & PERFORMANCE PRACTICE

Study #20, more than any other of Ives' smaller piano pieces, anticipates the extremely broad range of composite elements that develop into the Concord Sonata. Contrasting with works already discussed, it is a collation of all those features of tradition, experiment and improvisational freedom which the composer formulated into his mature style. The study exploits a multiplicity of invented routines and borrowings together with many personal ideas

and their own subjective associations. It also epitomizes Ives' evolving approach to the freer realization of his keyboard writing during live performance. John Kirkpatrick says of the composer that:-

> Each time he played it, he would have improvised a whole new set of tempi, and he would have wanted other players to be equally free, as long as each section was in character and the piece held together. 31

A capable edition has been published; though once again the editor has chosen to ignore Ives' often intentionally ambiguous attitude towards musical spellings and phrasings: regrettably it is barred throughout. As #20 contains many experimental organizations that have already been covered, Table Y overleaf details the most important compositional elements employed in the work.

The psychological coherence of this and other mature piano writing cannot be explained solely in terms of a bar-to-bar analysis; for, this is a poor guide in assessing why, in a work employing a wide variety of syntaxes, it still achieves a strong sense of musical continuity. At the primary level, that of overall layout, Ives' structural choice of an ABCDEDCBA+coda palindrome with central trio not only confirms an obvious acquaintance with traditional rondo form, but also introduces a cyclic element into the proceedings: from the middle everything unwinds in reverse order. The journey has gone "back to base" and is ready to start again; Ives' own baseball analogies seem more appropriate here.

Regarding continuities occurring within and between the study's various sections: a careful balance is effected by placing traditionally developmental areas of musical activity against others of a much more static nature which have little or no sense of forward impetus. The former category is maintained by the use of complementary phrase-types which are modified by customary extensions and elisions, together with quasi-romantic rising and falling.

Table Y: STUDY #20 — List of Events.

Overall Form: Palindromic ABCDEDCBA + Coda.

Manuscript and 1981 edition divisions:- (Barrings)

4B 1-24		4B 160-183
3B 25-36	Central TRIO:	3B 148-159
2B 37-56	69-117	2B 130-147
1B 57-68		1B 118-129
	Coda: 184-187	

NB: "Pathetic" pentatonic motive (i.e. $^{A}{}_{G}F_{D}$) to be found everywhere in a wide range of intervallic and rhythmic variants.

Arrangement of Sections 4B, 3B, 2B, 1B, Trio, Coda:-

4B:1-9="Call to arms"-fanfares, bells, clusters, pedals; r.h.chromatic fall leads to a bar of rest (b.9).
10-17=Ragging shifts, static/non-developmental, ostinato patterns.
18-20=Metrical modulation (notated acceleration) together with following rise in pitch at b.20 clusters.
21-24=Wedge-shape clusters in mirror between hands.

3B:25-26=Emerson-type writing; "Taps" motive.
27-28=Converging triads in both hands; contrary motions; "pathetic motive." Developmental phrasing; chordal counterpoint.
29-32=5ths/9ths mixed, with accompaniment in 6ths; Romantic line.
33-36=Parallel 3rds;Romantic line(bb.34-5);inner rhythmic imitations.

2B:37-40=cf.accompaniments of First Piano Sonata III (bb.27-48 etc.) which also rise & fall. Added note l.h. with Romantic line in r.h.
40-42=Browning Overture chords in parallel and contrary motion. (inverted treatments in sections bb.40-43 & bb.44-46).
43-45=SATB wedge;Browning chords;"pathetic"motive(AFG);counterpoints.
46-52=l.h.in 5ths;SATB-wedge;"Meno mosso" in interchanging 4-part counterpoint,cf.3 Page Sonata I textures?(bb.48-50=canon).
53-54="Poco allegro":Browning chords opening in parallel.
54-55=Cadential effect;r.h."pathetic"motive, 8va.repeat.(cf.#9&#22?)
55-56=Marching roll-off clusters; chordal "taps" motive.

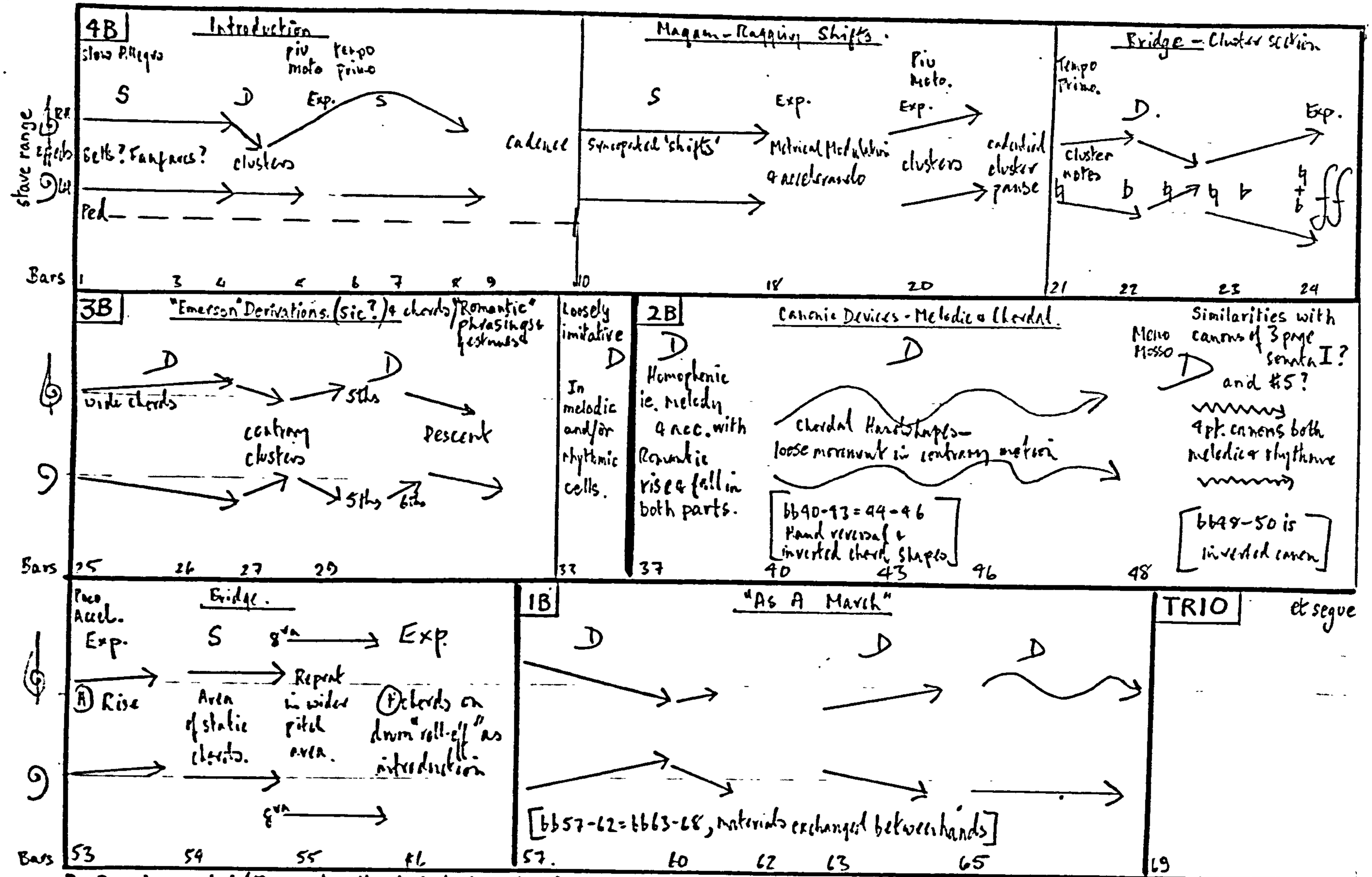
1B:57-60=March in converging wedge,r.h.pentatonic/l.h."taps" rhythm. (bb.57-63 & bb.63-68 reverse material between the hands).
60-62=Widening range — expectancy!
63-68=Materials in r.h./l.h. reversed (see bb.57-60 above).

TRIO: (Quodlibet/mix-up/muster).
69-70= Introductory vamp.
71- = Quote: r.h."I've Been Working on the Railroad."
77- = " : r.h."The Girl I Left Behind Me."
73-77= " : r.h. alto line - unidentified tune.
80- = " : r.h."Turkey in the Straw" in jig rhythm.
82- = " : r.h.Tilzer's "Alexander";l.h.acc. static added notes.
94- = Whipchord routine (cf.Waltz Rondo and #8 etc.).
98-99= " " (cf.Browning chords?); reprise clusters.
116-7= Cluster roll-off to next 1B section.

CODA:184-187 = repeat of 1B;closing with l.h. falling away chromatically.

As detailed previously, such treatments occur in tonal or non-tonal circumstances. Again the listener's historical conditioning provides psychological expectancy. This helps to maintain a kind of perceptual continuity, even in some of the most dissonant portions of Ives' writing. Similarly, variations in speed, texture or dynamic intensity tend to reinforce such subjective feelings. The last category embraces non-developmental and static structures, whether they exist as ostinato material or as an unwinding maqam-process with ragging "shifts." Though relinquishing traditional phrase shaping, the other features of expectation given above are still brought into play. While it is likely that #20 evolved through pianistic trial and error, and only afterwards was consolidated and stabilized into notation, the formal disposition of developmental and non-developmental areas within its various sections appears to have been intuitively determined, as in many other solos of the period.

Ives' juxtaposition of traditional phrase shaping with more exploratory manipulations of static pitch areas, ostinatos, fanfares and bell motives is presented graphically in Table Z overleaf. These interchanges are well demonstrated in the opening of #20: bars 1-3 are of consistent pitch range, use a limited choice of notes, and due to the bass pedal's assymetrical tolling convey an impression of timeless continuity. However, the introduction of clusters in bar 4 which pitch and rise, immediately invokes a sense of anticipation: this is reinforced at bar 5 as both hands continue the ascent. Bar 6 reinstates the ostinato, but in modified form; and this is followed at bar 10 by a maqam-process of ragged "shifts." After a two-bar metrical modulation where acceleration is effected through the subdivision of four to five-note semiquaver groupings, this stasis is replaced at piu moto with another ascent in added-note shapes. Other more



D = Developmental (Romantically styled phrasings); S = Static, Non-Developmental (Pedals, Ragging Ostinati); acc. = accompaniment.
Exp. = Area of Expectancy/Anticipation (ie. Change in Dynamics; Rise in Pitch; Increase in Speed); (H) = Handshape chords & figures.

Table 7: Study #20 — Graphic Analysis.

unusual wedge-shaped clusters between bars 21-4 lead the ear forward as the textures are varied in density and open out to introduce section 3B. From this point onwards, whether the means of expression is based upon non-tonal clustering or on bitonalities with tonal implications, the retention of romantically-styled phrase gestures automatically arouses traditional feelings of expectancy. Such all-pervading complexity makes the arrival of the central trio at bar 69 sound uncomprehendingly trite. Here, Ives presents a quodlibet on popular tunes supported by the vamping simplicity of a "three-chord clench."

Progressing to smaller units of construction: in addition to the study's extensive use of varied "pathetic" motives, the rotated four-note figurenlehre and its popular derivative the chromatic riff are to be found everywhere. The canonic treatment of these features can be seen within the textures of bars 48-51: similar usage has already been discussed with reference to #5 and the first movement of the Three Page Sonata. Other examples appear in the opening pages of the First Piano Sonata and in Thoreau, where four-to-six-note cells are frequently elevated to a kind of leitmotive role. While the motivic counterpoints in parts of sections 3B and 2B move horizontally in developmental phrasings, they are occasionally interspersed by chains of hand-shape chords which by their very vertical nature tend to delay the sense of flow. This is particularly true at bars 40-1 and their repetition at bars 44-5: materials here are exchanged between hands prior to the reinstatement of more contrapuntal lines in the following meno mosso. It is interesting to note that these static chord chains bear more than a slight resemblance to larger structures used in the Browning Overture as mentioned previously with reference to #8. This variable continuity of ebb and flow can even be

applied in Ives' attitude towards rhythm: a regular pulse will only elicit expectation if it is coupled with some change in pitch area, dynamic intensity, texture, interpretative rubato or any combination of these treatments. When they are lacking, the music becomes static, non-developmental; hence the ostinato and maqam elements which contribute to the success of this work.

The issue of variable cognitive focus is all important when applied to the composer's unique ideal of internal structure and sense of relative freedom in performance. His common retention and further exploitation of quasi-traditional elements examined above inevitably promotes traditional ways of psychological interpretation on the part of the listener. However, such understanding is continually frustrated by the use of a wide variety of musical syntaxes deployed in a bewildering number of ways: usually these extend far beyond nineteenth-century constraints of expressive style. When for instance, some familiar feature like a functional harmonic progression or a tuneful "pathetic" motive is brought into the musical foreground, Gestalt processes of conditioned closure immediately come into play. Invariably though, comprehension is both fleeting and transitory in nature; with the obvious exception of clearly tonal passages like the central trio of study #20. Hence, the listener's expectations become subverted, or alternatively are displaced by others which themselves offer further perplexing problems for understanding. The process is ongoing.

In Ives' initial conception and eventual consolidation of a musical thought into notation, each chosen parameter of construction can be expressed as a continuum moving forward in time. Within, are placed features ranging from the carefully ordered and of definable shape, to others which are amorphous and in a state of

constant flux. Such mutability reflects the vagaries of Ives' creative temperament. Put into effect, its applications embrace a succession ranging from melodic line to diminutive motive, rhythmic to arhythmic, tonal to non-tonal, and so on throughout a vast array of interchanging parameters. Between the extremes of such continuums this use of variable focus almost amounts to an intellectual game unfolding in musical time.

Clearly it is impossible for a listener from one moment to the next to perceive fully each and every sonic event placed before him. The intrinsic linearity of music and indeed spoken language with its more structured syntax offers no capacity for recall, unless there is some intended repetition of previously enunciated material. Of course, understanding becomes more focussed upon complete rehearings. In the case of Ives as composer, the adoption of an evolving concept of musical creativity lends itself well to phenomenological analysis: a personal art form existing as a mode of "becoming."[32]

g) SUMMARY

The Take-offs and Studies are a body of piano solos both original in design and unique in creative purpose. Many of their sources relate to abandoned compositional projects from a wide range of orchestral and smaller instrumental works, some of which contained important parts for keyboard obbligato. During his most experimental phase Ives salvaged a lot of these items by redeploying them into his set of solos. In this way he built up a repository of innovative ideas for possible inclusion in future compositions. As Ives worked out many of his projects at the piano prior to their consolidation on manuscript paper, these pieces act as a record of the freedoms portrayed in his improvisatory methods. This is endorsed by the fact that quite a few are not only

loose in structure but also fragmentary in content. Some of their musical events could be subjected to reordering in performance: a fact substantiated further by the composer's own private recordings made in the 1930's and 1940's. The exploratory nature of the Take-offs and Studies presages Ives' continuing reappraisal of new constructions and treatments adopted in the completed piano sonatas, and his later reassessments and recorded improvisations on ideas derived from them. Accordingly these solos exemplify Ives' attempt at fusing the permanence of notated composition with the intrinsically evolving elements contained in live improvisation. The result is a unique keyboard style which embraces the phenomenological nature of "becoming" in both conceptual and philosophical terms.

References.

1. Consult the Bibliography for later editions of these works.
2. Recorded on Desto DC 6458-6461.
3. Article "Ives" in Grove's Dictionary of Music and Musicians (6th edn., edited by Sadie 1980) Volume 9, p.414.
4. Kirkpatrick, A Temporary Mimeographed Catalogue of the Music Manuscripts and Related Materials of Charles Edward Ives . . . p.96.
5. Ibid. p.97.
6. Ibid. pp.88-90.
7. Ives, Essays Before A Sonata, p.22.
8. Article by Nacham Schoffman: "Serialism in the Works of Charles Ives", in Tempo no.138, September 1981.
9. Ives, Memos, p.101.
10. #5, p.2 of the manuscript copy.
11. See similar treatments of wedges in the anthem Let There Be Light and the stacking of intervals in the song On the Antipodes.
12. Article by Nacham Schoffman, op.cit., p.25; this refers to a similar permutational unfolding in the song Vote for Names (1912).
13. See q1807/4801 stave lines 11 and 12 onwards.
14. Hitchcock, Ives, pp.37-8.
15. See q1767/4814.
16. See m.s. stave lines 9 and 10; these are equivalent with the printed Cowell edn. p.29,sys.2-3, l.h. part.
17. Kirkpatrick, op.cit., p.98.
18. cf. bb.89-104 and b.199 to the end.
19. See original m.s. q1793/4794.
20. See original m.s. q1794/4795, lines 6 and 7 to the end.
21. Ibid., lines 8-12.
22. m.s. subtitle.
23. This corresponds with the rising pentatonic head-motive to "Oh Happy Day" in the First Piano Sonata score p.44,sys.2.
24. Conjectural numbering. See q1816/4804.
25. See q1793/4794, stave line 7, from the four-note semiquaver group through to the barline at the middle of line 8.
26. Ives, Memos, p.64.
27. A similar figure is used in the opening and closing bars of #22.
28. See Cowell edn. of #9 p.14,sys.4 for these chords.
29. Ibid., p.15,sys.4, starting in the middle stave.
30. See Ives, Memos, p.199,n.3. #2 fugato is in q1785/4783 L.2.
31. Preface to the 1981 published edn.

32. cf. Husserl, The Phenomenology of Internal Time Consciousness.

CHAPTER SEVEN

CONCLUSION

> The music we are writing now influences the way in which we hear and appreciate the music of Ives more than . . . the music of Ives influences us to do what we do. 1

A purely historical appraisal of the composer's position in American music will only prove Ives to be "The Great Anticipator."[2] This would present him as both a continuing disciple of nineteenth-century traditions, and as the father of twentieth-century experimentalism. However, such categorizations are confusing and in no way account for his complete disregard for cultural divisions in musical style and performance practice. Added to this, the publication of only a limited number of the smaller keyboard compositions has given the implicit romanticism of the sonatas undue emphasis. Granted that superficially these larger works might be misconstrued as a logical continuation of the European epic sonata transferred into an American environment; but again, historical labelling like this does not explain Ives' unique explorations of pianism, musical components and instrumental sonority. His ideas were not a natural concommitant of romantic techniques of composition, though many of his works were certainly permeated with their essence. Soon, following on from the early quartet, symphony and songs, he was to put such inherited styles into the distant recesses of his creative mind. Instead, the composer's evolution has been shown to be based very much more upon his own experimental discoveries and the ways that these were to be absorbed into his piano writing. In this respect, his art is self-perpetuating and not coherently derived from external styles.

Though Ives started out as a keyboard player and underwent an academic education, the continuing influence of his father's enlightened training was reflected by his enthusiasm for the whole nature of music as practised in vernacular culture. His identification with this from university onwards meant that above all he learnt his pianistic trade and compositional attitudes by playing popular music. Other than this involvement from his Yale years and intermittently throughout the following decade, it appears to have been all the public exposure that he ever had. Accordingly, the composer's musicality never became strongly conditioned by the rituals of contemporary concert life: presumably there were exceptions, when he performed duteously for family and close friends. And so, apart from his occasional forays into popular fields, Ives could continue to work, experiment and strengthen his musical discoveries in relative isolation throughout the whole period in which his piano compositions were written. This self-imposed detachment from more formalized types of music-making promoted a change in attitude towards the very nature of his art. He was to regard his creative position as a performer on a par with, or even superior to his activities as a piano composer. Such individuality was, and is, very much a departure from the compartmentalized notions in western art-music which consider the performer as solely the servant of the composer's creative intentions. This is in direct contrast to attitudes in non-western cultures whereby both composer and executant are often synonymous: they only draw upon a loose framework of pre-existing musical material for their improvisation-based performances.

While Ives' unusual approach to pianism was certainly intended as an outward expression of his individuality, this was only the initial impetus for his creativity. The pursuit of iconoclasm is one of self-promotion and this was not Ives' ultimate aim; except

perhaps in his undergraduate years when he paraded his "stunts" for fun. This is also borne out by his activity after 1900 spent privately designing his solos, other than on the few occasions when he tried out his instrumental ideas with theatre musicians. By that time such comic routines had become fully absorbed into his experimental language: they were purposeful devices, and no longer wilful ones. In this respect Ives began to take his creative tasks very seriously. Other than launching a "swipe" now and again at the contemporary musical establishment, he soon left the colouring of his social prejudices behind. He did what he wanted to do. He composed. However, there is no doubt that reaction in the form of indignation, satire or pure comedy frequently sparked off his imagination; but a burlesque such as his Bad Resolutions and Good is a rare example of iconoclasm per se. It is neither of serious musical worth nor intent.

Though Ives' often provocative style reflects his distrust of academic music, it does not relate to any kind of specific pianistic practice. While he certainly drew upon popular stock procedures of vamping, reach-me-downs and humorous routines, these were to provide only the loose foundation onto which he could place very much freer modes of experimentation. His "take-offs" and "boy's fooling" were both the norm in Eastern Ragtime of his day: even later they continue to appear in the playing of Art Tatum or the pasticheur Liberace. But with traditional forms of jazz pianism pre-existing tunes are chosen as models for development. A westernized version of the kinds of framed improvisation mentioned above: namely the "altered reproduction of an already existent composition."[3] However, Ives went very much further than this.

The uniqueness of his keyboard writing is established by the frequently "provisional quality"[4] implicit in many of his unpub-

lished solos: those areas which sound open-ended and improvisatory in aim. This shows the composer to be enlisting a concept whereby "invention and execution coincide."[5] Such an idea evolves from his use of cadenza materials from abandoned scores. They appear "frozen" into the notations of the Studies, areas of the Concord Sonata, and Emerson Transcriptions; but are also presented in more transient fashion within parts of the composer's private recordings. Their originality lay in Ives' "construction of platforms or scaffoldings from which the performer could take off and fly, or to which he could return as a point of rest."[6] This factor marks out his pianism as being completely unique for its period and of greater importance than has previously been realized. Granted that the published scores include a handful of unusual invitations to use ragged repeats and "ossia" alternatives, together with exhortations for performers to improvise on some of the ideas provided: all point towards more than just the constraints offered by fixed notation. But until now these few idiosyncracies have indicated rather a confused picture of Ives' intentions; on their own they could be considered as mere eccentricities on the composer's part. This has been compounded by his use of an expressive language which vacillates within a continuum of cultured and vernacular presentations.

But the presence of the unpublished solos exposes more experimental viewpoints whereby some of the amorphous components discussed have hinted at the possible chronological rearrangement of whole sections of writing. Parallels can be drawn here with the systematic mobile arrangements appearing in Grainger's Random Round (c.1912) for two pianos, Cowell's solo Anger Dance (1914) with his later Mosaic Quartet (1935), and ultimately with Stockhausen's Piano Piece XI (1956). These formalizations correspond with Ives' wish for his performers to launch out and make their own reappraisals of the given materials.

The relative interplay between fragmentary and coherent shapes from borrowed sources is a uniquely Ivesian phenomenon. It is neither represented by Tatum's comic asides nor in the kinds of expressionist imitative treatments of the experimentalist Henry Brant. A composer who genuinely acknowledges his debt to Ives' concepts of musical space,[7] Brant has had extensive experience in popular fields and is a prodigious improviser on many instruments, including the piano and organ. But his distorted interpolations of borrowed tunes and dare-devil tomfoolery in Kingdom Come (1970) for two orchestras and organ, and the totally improvised and multi-tracked Machinations for woodwinds, harp, percussion and organ are pure second-hand comedy.[8] A similar assessment could also be applied to the treatment of pastiche ideas in Lukas Foss' Baroque Variations (1957) whose own gesturings sound superficial. Such "fun pieces" in no way complement the very careful manipulation of borrowed materials in the slow movement of Ives'First Piano Sonata: it does contain elements of humour though not for cheap sensationalism, but rather as a vehicle for anticipating the kinds of layering, temporal and distancing techniques which appear in the Concord Sonata and later orchestral scores.

The subtle absorption of quotation has its nearest pianistic equivalent in Loren Rush's Oh, Susanna (1972), where a march from the Marriage of Figaro is carefully interpolated into the fabric of the work. Like Ives' Erie variations it too is a meditative ramble through amorphous textures. The march motives become a ray of dim tonal focussing which emerge out of the overall atonality of the piece. In contrast, pianist-composers like William Bolcom and William Albright have become too obsessed with the dissonant yet formal recreation of ragtime styles to be considered as serious practitioners of quotational techniques.

Whereas Ives' writing is successful in its treatment of borrowed materials from a number of cultural sources, it is questionable whether the kinds of pastiche style attempted recently in the works of George Rochberg achieve anything at all. Having forsaken serialism in order to rehash the history of compositional practice "alla-Rochberg", the results of his labours are either laughable, or just embarrassing in the extreme. His solo Carnaval Music (1971) with its sham blues and vapid ragtime imitations offers no substitute for Ives' most careful fusions of pianistic traditions. Similarly, though on a much more serious level, while the player-piano studies of Conlon Nancarrow resemble Ives' own wish to produce a set of problem-solving pieces, as discrete essays in composition they make no attempt at crossing the cultural boundaries of musical style.

All these examples indicate that there appears to be no current composer in America whose piano writing contains any true sense of intrinsic modernity. Ives' whole output presents a paradox; for, in his wish to build a language drawing not only from a whole range of indigenous musics but also infused with different fixed or variable approaches to performance practice, he upsets long-held notions of the divisions between cultured and vernacular art. He breaks down these divisions through his sounds. While the indeterminacies of Cages's music makes the proximity of contradictory events legitimate because of its formation through chance procedures, Ives' own mixtures are pre-determined. He forces us to listen to these incongruities. Though he uses his compositional expertise to create such effects, we perceive the modernity of his music solely through out ears. In his piano writing this aesthetic is rooted in the field of performance and the possible prospects for improvisation. Even improvisation is modern because it demands technical manipulation in situ, and the immediate juxtaposition of creative ideas through

association. Present cultural stereotyping certainly does not equip us with the requisite tools for such musical understanding.

Ives' refusal to be pigeon-holed can be equated with America's obsession with its "usable past." Rochberg portrays this craving at its most paranoid. But Virgil Thomson, who was for many years the self-appointed barometer of critical taste also shows a basic lack of understanding of Ives' musical aims. In "The Ives Case" he criticizes the construction of the Concord Sonata, saying that it contains ideas

> which although intrinsically interesting for appearing to be both highly spontaneous and highly complex, seem to be casually felt . . . real spontaneity does not reinforce itself . . . Here is improvisational and . . . quite easy-going material that simply does not develop . . . 9
>
> Intentions are no guarantee of quality. 10

This is the view of the musical establishment: it attempts to fit the work solely into the American romantic tradition. In fact it could be considered as an accolade. Indeed Ives was loath to "freeze" his ideas into notation: this is substantiated by the frequent reappearance of Concord Sonata materials in later works as previously detailed. To him, all that mattered was the "substance" of good intentions. He wished to break down the barriers between composer and performer. In this respect Ives is an intervention in accepted notions of musical culture. Conversely, in the sphere of the American avant-garde, the kinds of self-congratulatory prattlings inspired by some of the "creative" contributors in the chapter "Five Composers' Views" from the compilation An Ives Celebration[11] only emphasize the crisis of guilt suffered by those who attempt to ape Ives' music and ideals. Elliott Carter's continuing ambivalence towards the composer is a more subtle expression of the same feelings.[12] All the evidence points to Ives as an "American Original."

In western music it is in the realm of free-jazz pianism that the composer's ideas meet with their nearest equivalent. This is not because this particular field is totally free in the sense of being completely indeterminate, but due to the fact that, at least during its formative period of the 1950's, it drew inspiration from the widest range of musical practice: this started as a reappraisal of inherited jazz traditions, but also moved towards a consideration of romantic, experimental and avant-garde styles. And like Ives' own pianism, it had mixed roots in both popular and academic cultures. Its first expression can be found in the playing of conservatory-trained musicians like Lennie Tristano and Cecil Taylor: of the latter Wilfrid Mellers has said that his "music falls between the stools of improvisation and composition."[13] Starting also as a reaction but this time against the fixity of Europeanized jazz forms, this type of pianism built up its own hybrid language through the dismantled reprocessing of these traditional features. In this respect, the more eclectic playing of Chick Corea, also conservatory trained and invariably romantic in delivery, is expressed through his exploration of different pianistic techniques.[14] His vast compendium of practical knowledge compares well with Ives' own lyrical and gestural approach: whereby tonality and atonality emerge and recede within the interplay of ever-changing textures. In fact some of Corea's free solo improvisations do bear some comparison with Ives' own.[15]

Established notions of culture also highlight the crisis of approach in Ives' music. His unpublished solos help to clarify this issue. Purely romantic interpretations cannot hope to accomodate the kinds of toccata-like passages which appear in the more virtuosic areas of study #8, Rough and Ready, or the closing pages of Hawthorne. These examples contrast violently with the composer's

predominantly nineteenth-century lyricism. At one end of the spectrum, the Concord Sonata can be heard through the non-interpretative playing of Aloys Kontarsky's 1961 recording: an approach which cares nothing for historical precedence in style or performance practice. Conversely John Kirkpatrick's 1967 recording unlike Kontarsky's, cannot cope with the brittleness of the composer's amorphous and "quasi-aleatoric" areas of writing. In fact his 1945 version comes nearer to solving this problem: it is a young man's realization, mistakes included. Presumably this was the kind of playing which inspired Ives' patronage in the first place.

In contrast to the above pianists, both of whom in their own particular fields possess pedantic attitudes towards performance, it would be interesting to consider how the late Glenn Gould might have treated the Concord Sonata. Though eccentric, his expertise in most pianistic styles, including jazz, may well have offered the necessary fluidity of approach for interpreting Ives' intentions. In this respect, Alan Mandel's own diverse American repertory is a beneficial accessory for the intelligent realization of the composer's ideas.

But it is in the world of publishing that Ives' aims can best be represented or distorted. While Henry Cowell in the 1940's sought to issue some of the composer's solos in order to attract the public's attention, these editions can not be regarded as scholarly in present musicological terms. However, Cowell did at least refrain from tampering with Ives' more open-ended opinions on barrings and idiosyncratic spellings, the importance of which has been emphasized in this research. While new editions of integrity are certainly required, and the American Charles Ives Society is well aware of this need, recent editorial policies of "rationalizing" the more indeterminate areas of the composer's piano writing

often detract from his musical and philosophical wishes. Already the enforced barrings appearing in John Kirkpatrick's 1975 edition of the Three Page Sonata show that culturalized restraints are creeping into Ives scholarship rather than pointing towards the elements of choice available in his scores. Such academic meddling appears solely for the convenience of concert performance and is at variance with the composer's frequently arbitrary approach to matters of notation and rhythmic stress. This fact brings to mind his own tacit disapproval when he saw John Kirkpatrick's barred "metrical interpretation" pencilled into a performance copy of the Concord Sonata: Ives was told that these additions were for the convenience of memorization. Apparently "he didn't say anything—he looked puzzled."[16] Viewed in this light, the editor's forthcoming revision of the sonata can only be anticipated with trepidation. It may well be his fait accompli. At least Alan Mandel's own performing versions have been emphasized as being only personal interpretations or conjectural reconstructions of the original materials.[17]

The disordered state of the manuscripts and diffuse nature of Ives' pianistic aims can no longer be regarded as a legitimate excuse for the delayed publication of his remaining solo works, especially as many already exist in quite coherent form. But, for those areas of his writing whose content is either fragmentary or amorphous, it would be an event of musicological and educational importance if legible transcriptions of the original manuscripts were issued in variorum editions. This could at least partially fulfil Ives' wish to put more of the onus of realization on the performer. The provision of open-ended formats would serve both to bring the internal evolution of his ideas to the fore, and as an encouragement for those who consider improvising their own musical solutions. A fascinating prospect, and one which would meet

with the composer's full approval.

Henry Cowell envisaged a "whole world of music": one which knew neither cultural, political nor social boundaries. Ives' own fascination was with the diversity of American music making. This was his world. Though many of his aims in the keyboard writing may appear only as dreams towards an impossible reality, they were just his way of provoking a fresh appraisal of all that we hear. Conventional listening will not reveal the subtleties of his art.

> A mind that is interested in changing, though, such as the mind of Ives, is interested precisely in the things that are at extremes.. . . Unless we go to extremes, we won't get anywhere. 18

References.

1. Cage, A Year From Monday, p.41.
2. Stravinsky, Expositions and Developments, p.98.
3. Ernst T. Ferand, "Improvisation in Music History and Education", Papers of the American Musicological Society, 1940, pp.115-125.
4. Robert P. Morgan, "Rewriting Music History—Second Thoughts on Ives and Varese", Musical Newsletter,2, nos.1,2 (1973). Extract from Open University Course A308, Units 22-24 "Ives and Varese", pp.94-105.
5. Ferand, op.cit.
6. Frederic Rzewski, "Indeterminate Performance", The Dictionary of 20th Century Music, (1974 edn., edited by John Vinton), pp. 565-568.
7. Gagne and Caras (Editors), Soundpieces—Interviews with American Composers, p.57.
8. Brant, Music 1970, (Desto 7108).
9. Thomson, American Music Since 1910, p.25.
10. Ibid., p.27.
11. Hitchcock and Perlis, An Ives Celebration, pp.187-208.
12. See Carter, Flawed Words and Stubborn Sounds,(edited by Allen Edwards), and The Writings of Elliott Carter, (edited by Stone and Stone).
13. Mellers, Music in a New Found Land, p.345.
14. Berendt, The Jazz Book, p.265.
15. Chick Corea, Piano Improvisations Vols.1 & 2, (ECM 1020 & 1014).
16. Perlis, Charles Ives Remembered, p.215.
17. Conversation with Alan Mandel at the University of Keele, February 7th, 1980.
18. Gagne and Caras (Editors), op.cit., p.78, (Interview with John Cage).

Appendix.

An Analysis: The Slow Movement of the First Piano Sonata.

An Enquiry into: a) Use of Quotations.
b) Thematic Transformations.
c) Further Musical Possibilities.

The following is an examination of the way in which Ives treats borrowed quotations from pre-existing sources, their placement alongside and as interpolations into freely composed musical materials. It is designed to serve as a guide towards similar processes carried out in both the piano and orchestral writing.

Materials:-a) Volume 1 - Text Analysis.
b) Volume 2 - All Musical Examples. Sections are:-
* Borrowed Tunes and Cyclic Motive.
* Examples cited in vol.1. text.
* Position of variants in the printed edition.
* Treatments of Variants (manuscript).

Quotations:-

1)Hymn: Erie(Er)-"What A Friend We Have In Jesus" (Converse 1870)
Form = AABA - without chorus or refrain.
Section A = mostly pentatonic shape.
Section B = more diatonic shape, chromatic auxiliaries, starts in the dominant key.

2)Song: Massa's In The Cold Ground(Ma) (Foster 1852)
Arranged in verse and chorus/refrain.
Form = Verse AA'AA; Chorus B+A ("Down in the Cornfield).
The verse is pentatonic; only the chorus first bar is in the descending major scale.

3)Hymn: Lebanon(Le)-"I Was A Wandering Sheep" (Zundel 1855)
Form = in two halves of two systems each; the first begins and ends on the tonic; the second begins on dominant, ends on tonic.
Melodic line is diatonic; the quotation is only used from bars 68-71 (end) of the movement.

4)Cyclic Motive: Also appearing throughout sonata movements I,III & V.
Basic shape (before modifications) = EGAF♯CE,
a descending pattern possibly related to bars 9-10 of the original Erie tune (ie. Er.9-10)

Tune letter coding is taken from C.W.Henderson, "Quotation as a style element in the music of Charles Ives."(Diss.,Washington Univ.,1969).

Published score used: First Piano Sonata, 2nd Edition, 1979.

Volume 1 Material: TEXT ANALYSIS

Introduction:

This movement is in loose variation form. It can also be considered as a free ramble or fantasia predominately on the two tunes Erie and Massa's in the Cold Ground which intertwine or are placed in juxtaposition with each other. Both have head motives strongly related in pentatonic shape: being nineteenth-century melodies this particular feature generates imagery associated with pastoral scenes as expressed in the nostalgic songs of Foster and his popular contemporaries. The melodic outline of each tune reinforces this feeling by an emotive pull towards the major sixth interval falling to the fifth. In addition their joint pentatonicism enables the composer during the movement's progress to exploit this gapped scale by incorporating into it extraneous notes which have much in common with the New England folk practices described in chapter four. The head-motive of each makes a major contribution to the variation techniques worked out here. Used reiteratively throughout, it can be regarded as a kind of idée fixe: a psychological home base sounding out frequently from the dissonant textures of the piece. This associative technique is also related to the two scherzi of the sonata: it reinforces the importance of melodic repetition as used in western folk tunes, simple art songs and hymns, where forms like AABA, ABCA or ABBA corroborate this reiterative need. The rudimentary nature of Ives' chosen quotations enables their original shapes to be retained at the forefront of his mind as this composition progresses through a variable continuum of psychological coherence.

Ives' wish to recreate a pianistic expression aimed at incorporating a wide number of personalized types of folk performance practice supercedes his undoubted knowledge of academic musical theory.

Thus, by coupling these features together, it will be seen that the choice of very simple melodic materials and their exposure to particularly sophisticated forms of variational manipulation not only avails the composer with limitless possibilities of folk embellishment, but also enables him to bring traditional devices into use: namely, diatonic and chromatic passing notes (accented and unaccented), auxiliaries, changing notes (nota cambiata), the echappé, and unresolved suspensions.

Melodic Treatments:

The movement is in ternary form (Largo bb.1-2; Allegro bb.3-61; Largo bb.62-71) with its regularly barred central Allegro as a set of disparate melodic fragments which gradually coalesce into a complete quotation of Erie. In contrast the outer Largo sections are not metrically barred: they act as slow meditations on incomplete phrases or smaller fragments of the tune, set either in bitonal or tonally ambiguous keys. The opening Largo chooses to delay the announcement of the quotation in original form; instead it commences only with melodic and rhythmic hints of the tune's general phrase shape. But before this, is an introductory passage based on an expanding/contracting wedge texture derived from the circle of fifths. In the sonata preface Lou Harrison calls this a preliminary "tuning-up", though similar constructions have already been mentioned with reference to the openings of the Piano Trio and study #18/23. The whole cadences on a musical "sigh": a motivic device occurring throughout the work and heard both in its opening and closing bars. Here it takes the form of a descending semitone to minor third; or alternatively, the more pentatonic shape of a major second to minor third corresponding with the head motive of Erie (scale degrees 6-5-3),(ex.1). Already possibilities of ambiguity are introduced here.

Immediately after the "sigh" cadence, the first phrase Er1-4 appears.

Though its rhythmic structure matches that of the original, the hymn's pentatonicism is transformed into whole-tone shape: notes of bars 1-2 are sharpened while the answering phrase retaining its initial triadic features, is changed momentarily into the whole-tone scale's other transposition (ex.2). This is achieved by reducing the upward leap of a perfect fifth by a semitone, to its diminished form; such intervallic compression would easily allow for modulation into another key if so desired. At system four, ambiguity between the head-motives of Erie and Massa is already evident, with the intrusion of an alien F♯ into the descending sequential line (ex.3). Such treatment of a sequential extension may seem arbitrary unless the accompanying harmonies in major sixths are noticed as descending from a central pivot on the "black-note" dyad of F♯. In both melody and support the choice of black notes on this pivot chord facilitates easier hand location when widening the range by progressively descending semitones.

At points of SATB or string-type texture primary melodic interest may change identity and become secondary accompanying material. This exchange is apparent at p.20,sys.5 where the soprano line of Er1-2 passes into tenor range and newly derived material is substituted in its place: the soprano and tenor lines here are harmonized in parallel tenths. Following this, at the centre of the system, the six-note cyclic motive appears in complete form for the first time (ex.4). It is surreptitiously introduced prior to its continuation as an upper counterpoint in semiquavers based upon elements from Er9-12. At p.21,sys.1 prior to the meno mosso of p.21,sys.2, there is a fuller quotation of Er11-12 retaining only vague melodic and rhythmic outlines of the original phrase (ex.5). Its concluding fall of a semitone is preparation for that which follows: an ostinato

section based on the first bar refrain of Er9 with bell-like textures oscillating over a reiterated pedal D.

The movement's central Allegro, is where the main quotations come clearly into musical focus and then recede once more during the closing page. Here the head-motive of Massa is introduced in a compulsive kind of reiterative technique (ex.6). Treated both in downbeat and inverted form as upbeat material but modified to whole-tone shape, the motive undergoes various types of rhythmic transformation. In general, the only intervallic adjustments made to its descending shape are in the use of major-minor thirds, possibly relating at this point to "blues" intonations. The repetitive nature of this often frenetic section, where the curious advent of a kind of "ragging"delivery seems more apparent than real, may be explained in the following appraisal on psychological interpretations of repetition:-

> A figure which is repeated over and over again arouses a strong expectation of change both because continuation is inhibited and because the figure is not allowed to reach completion. 1

Ives' rapid-fire placement of many incomplete melodic, rhythmic and textural variants of his quotations leads the ear on towards more complete announcements later. Also, tedium and mental exhaustion are alleviated by the addition of two punctuating "slap chords"; these $\frac{E}{C}$ dyads separate truncated repetitions of motivic material by acting as fleeting points of cadential rest. They occur either in loosely triadic shapes, or as more complex handshape chords lasting until a bridge passage at bar 10 which is based on these punctuating features. Here, at p.22,sys.1, just the E and F♯ pitches from the Massa are retained and added, making fuller chord shapes of $\frac{E}{C}{}_{A}$ and $\frac{E\sharp}{E}{}_{C}$ respectively (ex.7). Again it is difficult to ascertain at this point whether the composer is drawing from fragments of Massa

or Erie, especially because he launches into the refrain of Erie at bars 10-13 placed in high register; but omits the cadential area of Er10; this would upset the flow of the melodic line. A similar process appears between bars 13 and 14, where again the quotation is prevented from achieving cadential rest but moves instead into a link section and more complex "slap chords" at bar 15. From here until the first appearance of Erie complete at bar 27, Ives builds his materials by a kind of "extension through interpolation":[2] This is effected by using small melodic and/or rhythmic fragments interspersed with passages of linking sequential runs, ostinato sections, or just freely composed material. Quotational elision, a treatment via contraction whereby the first or last notes of a phrase become eventually all that remain of the original, is a technique which Ives applies in much of his piano writing: this is especially evident in areas of the sonatas where increasingly frenzied writing is presented as the tension mounts.

The complete statement of Erie at bar 27 is the keystone of the whole movement. Here, all disparate elements take on coherent musical shape. Textures are homophonic, though filled with a large amount of inner passage work: the melody in the right hand contains intermittent use of octave and added-note cluster chords placed over left-hand chords based upon A-major tonic and subdominant degrees. At cadential points in the hymn quotation, the left hand places overhand "whip chords" into the upper reaches of the keyboard. Its B-section has the dominant-seventh resolution delayed (ex.8): instead the final phrase is prolonged by augmenting the note values into compound time prior to moving into a linking passage and an extended upbeat grouping at bar 35. Whole-tone intervallic transformations of Er15-16 (or Er3-4?), but with a retention of original rhythmic identity, occur at bar 40; this

is followed by a further expansion of range (ex.9) where reiterated fragments have become so compressed that they have disintegrated into purely rhythmic repetitions. In this, and with ragging techniques discussed in chapter three, motives progressively diminish by quaver until martellato chords herald a reappearance of Er1 at bar 47. This constitutes the first in a number of false starts; but a second verse never appears. Instead, constant reiteration of a rising third E-G (corresponding with E-F♯ in the original hymn) initiates new and possibly freely contrived material at bars 52-4 (ex.10). This is loosely based upon the two whole-tone-scale transpositions as mirrored in the left-hand accompaniment. Here the pitch rises by interpolated semitones, coming to rest on a static cluster chord (bar 58) with B's in the upper part. Upon reaching bar 59 there is a reintroduction of the "sigh" motive, initially as a four-note descent and shortening by the quaver to become a bell-like ostinato in cross-rhythm between the hands (ex.11). Here, on the last page, the Largo section returns: Erie, Massa, the cyclic and "sigh" motives all combine with the newly introduced quotation from Lebanon (bars 68-71) at the close of the movement.

Rhythmic Treatments:

As mentioned, when a phrase quotation is stated in full with or without disruptions from "slap chords", bridging or ostinato passages, it retains its original rhythmic identity. However, at areas of melodic disintegration, even when intervallic structures are preserved, experiments with rhythmic variation invariably take place. Rhythmic extension by way of additional units or contraction through the opposite process of elision are frequent in Ives' treatments of upbeat or downbeat groupings. They have much in common with ragging "shifts."

Example 12 shows just one place where gradual diminution occurs, coupled with a pitch fall prior to the next entry of Erie. Such a device can extend more systematically into a kind of metric modulation: p.20,sys.3 (bar 2) demonstrates this clearly in its use of a constant crotchet pulse underlying the progressively smaller units above (ex.13); yet, this section could equally be considered as a kind of static ostinato over reiterated pedal C♯'s, acting as an anticipation of the Erie quotation at p.20,sys.4. Often rhythmic identities are exchanged between simple duple and compound triple units, especially where there are linking passages. The composer seems to prefer ostinati involving some kind of rhythmic ambiguity, as for instance at bars 60-1 where prior to the final Largo, twos and threes create a hemiola effect in order to draw up the speed.

Harmonic Treatments:

When quotations are lengthy and closely resemble melodic and rhythmic contours of the original, they are more likely to be given some semblance of traditional harmonic support. This occurs in the central portions of the movement, where a full statement of Erie is underpinned in the left hand by alternating diatonic and whole-tone ascending runs in A-major: inner harmonies are in the dominant or subdominant like the hymn; dominant sevenths are certainly implied at interrupted cadence points between phrases. Here accompanying texture is consistent with leaps of a ninth (5th+5th) interval, to be followed by step-wise runs of whole-tone shape. Exceptions are the rather neutral accompaniment under the Erie head-motive opening the movement and at bar 65, where harmonic support is veiled and difficult to define. In the first case this has to be intentional as the whole-tone transformation is the first allusion to the theme: hence it is supported in the left hand by ascending 6/4 and 6/3 chords converging

towards the melody until a central point; then they diverge. The quotation at bar 65 is more complex in that both "white-note" melody and accompaniment descend in similar motion: the vaguely triadic left-hand chords seem to be determined via arbitrary handshapes. Any identifiable sense of key progression proves the exception in this movement with the obvious exclusion of its central portion. Elsewhere regular harmonic support is obscure or non-existent. A typical example of tonal ambiguity can be seen in the p.20,sys.5 piu mosso where the lower three parts move in sequences of parallel tenths filled with tritones in the tenor line. Here Ives expressly masks any fixed key sense so that more clearly defined tonalities of F and then D may be brought forth in ostinatos on the following page.

The faster Allegro section (p.21,sys.3) has the sounding or implied $\frac{E}{C}$ "slap chord" as its harmonic basis for bars 3-8: these notes constitute a sort of reiterative inverted double pedal. Retaining some connection with this, at bar 9 the C is changed into a bass pedal and used to support left-hand runs on quasi-bell harmonics. Similar treatment underpins both bars 15-16 (modified into an ostinato figuration) and again by implication in accompaniments from bar 27 onwards at Erie's most complete statement. The section of bars 3-8 also demonstrates the possibilities inherent in deriving left-hand materials from cluster chordings. Here all accompaniments are based upon handshapes built over the movement of the little finger through a number of semitone placings: in riff-like manner, the bass notes of each chord oscillate around the areas of A-A♭-G-G♭; example 14 shows the hand remaining more or less in one position over the keys.

While this sonata movement is clearly designed as a musical search coming to fruition and coherence at its central point, the closing Largo reverses the process by dismantling the clear-

cut imagery previously achieved. Here the tonal ambiguities of E-major and its relative minor of C♯ are reinforced as materials vacillate between these two areas in a drawn out and rhythmically assymetrical ostinato. This feature, together with the omnipresence of fifth intervals, "shadow notes" and little sense of harmonic progression or rhythmic impetus, gives a sense of temporal stasis. Even the "slap chords" of the previous section are transformed at bar 68 into slowed-down bitonal triads. Functional harmony is only reinstated in the final system of the movement where the E-major/C♯-minor ostinato alternates with the hymn's last phrase: Erie resolves all on its plagal cadence.

The conclusion of this unique meditation represents both a rationalization and apotheosis of all that has gone on before. Here tonal stability, textural purity with quotational and cyclic unity are all accomplished in close proximity.

References:

1. Meyer, Emotion and Meaning in Music, p.135.

2. A term borrowed from C.W.Henderson.

SELECTED BIBLIOGRAPHY

Books, Essays, Articles.

Backus, John. The Acoustical Foundations of Music. 2nd. edn. New York: W.W. Norton, 1977.

Berendt, Joachim. The Jazz Book. St. Albans: Paladin Paperbacks (Granada Publishing Limited), 1976.

Blesh, Rudi and Janis, Harriet. They All Played Ragtime. 4th. edn. New York: Oak Publications, 1950, 1971.

Cage, John. A Year From Monday. London: Marion Boyars, 1975.

Chase, Gilbert. America's Music. Rev. 2nd. edn. New York: McGraw-Hill, 1966.

Cowell, Henry.(Editor). American Composers on American Music. A Symposium. Stanford University Press, 1933. Reprinted edn., with a new introduction by the editor. New York: Frederick Ungar Publishing Co., 1962.

Cowell, Henry and Cowell, Sidney. Charles Ives and His Music. Paperback edn. with additional material. New York: Oxford University Press, 1969.

The Dictionary of Twentieth-Century Music. Edited by John Vinton. London: Thames and Hudson Limited, 1974.

Edwards, Allen. Flawed Words and Stubborn Sounds: A Conversation with Elliott Carter. New York: W.W. Norton, 1971.

Eiseman, David. "George Ives as Theorist: Some Unpublished Documents." Perspectives of New Music, Fall/Winter 1975, vol. 14/1, pp.139-147.

Elkus, Jonathan. Charles Ives and the American Band Tradition. Exeter: The University of Exeter, 1974.

Ferand, Ernst T. "Improvisation in Music History and Education." Papers of the American Musicological Society, 1940. pp.115-125.

Gagne, Cole and Caras, Tracy.(Editors). Soundpieces: Interviews with American Composers. Metuchen, New Jersey: The Scarecrow Press, Inc., 1982.

The New Grove Dictionary of Music and Musicians, 6th edn., edited by Stanley Sadie. London: Macmillan Publishers Limited, 1980.

Harrison, Lou. "On Ives's First Piano Sonata." Preface to the published score. New York: Peer International Corporation, 1954.

Henderson, Clayton. "Quotation as a Style Element in the Music of Charles Ives." Ph.D. Dissertation, Washington University, 1969.

Hitchcock, H. Wiley. Ives. London: Oxford University Press, 1977.

————. Music in the United States. 2nd edn. New Jersey: Prentice-Hall, Inc., Englewood Cliffs, 1974.

Hitchcock, H. Wiley, and Perlis, Vivian. (Editors). An Ives Celebration. Urbana: University of Illinois Press, 1977.

Husserl, Edmund. The Phenomenology of Internal Time Consciousness. The Hague: M. Nijhoff (Husserliana X), 1966.

Ives, Charles E. Essays Before a Sonata and other Writings. Edited by Howard Boatwright. London: Calder and Boyars, 1969.

————. Memos. Edited by John Kirkpatrick. New York: W.W. Norton, 1972.

————. Performance notes (Appendix) to the published score of the Piano Sonata No.2, second edition. New York: Arrow Music Press (Associated Music Publishers) 1947.

————. Footnote to the published score of A Set of Pieces for Theatre or Chamber Orchestra. New York: Edwin F. Kalmus, n.d.

Jackson, George Pullen. White Spirituals in the Southern Uplands. Chapel Hill, North Carolina, 1933. Reprinted by Dover Publications Inc.

Jasen, David, and Tichenor, Trebor Jay. Rags and Ragtime.New York: Seabury Press, 1978.

Kirkpatrick, John. (Compiler). A Temporary Mimeographed Catalogue of the Music Manuscripts and Related Materials of Charles Edward Ives, 1874-1954. New Haven: Library of the Yale School of Music, 1960. Reprinted without alteration, 1973.

————. Editor's Notes to the published revision of the Three Page Sonata. Bryn Mawr: Mercury Music Corporation (Theodore Presser Company) 1949, 1975.

————. Preface to the published score of Study No.20. Edited by John Kirkpatrick. Bryn Mawr: Merion Music Inc. (Theodore Presser Company), 1981.

————. Booklet to accompany the boxed set of gramophone recordings "Charles Ives — 100th Anniversary." CBS M4 32504.

Kumlien, Wendell Clarke. "The Sacred Choral Music of Charles Ives: A Study in Style Development." D.Mus.A. Dissertation. The University of Washington, 1969.

Lloyd, A.L. Folk Song in England. London: Lawrence and Wishart Limited, 1967.

Lowens, Irving. Music and Musicians in Early America. New York: W.W. Norton, 1964.

Mellers, Wilfrid. Music in a New Found Land. London: Barrie and Rockliff, 1964.

Meyer, Leonard B. Emotion and Meaning in Music. Chicago: University of Chicago Press, 1956.

Morgan, Robert P. "Rewriting Music History—Second Thoughts on Ives and Varese." Musical Newsletter, 2, Nos.1, 2. (1973)

Perlis, Vivian. Charles Ives Remembered. New Haven: Yale University Press, 1974.

Perry, Rosalie Sandra. Charles Ives and the American Mind. Kent, Ohio: Kent State University Press, 1974.

Rossiter, Frank R. Charles Ives and His America. London: Victor Gollancz, 1976.

Sachs, Curt. The Wellsprings of Music. Edited by Jaap Kunst. The Hague: M. Nijhoff, 1962. Reprinted by the Da Capo Press.

Schoffman, Nacham. "Serialism in the Works of Charles Ives." Tempo No.138, September 1981, pp.21-32.

Stone, Else and Stone, Kurt. (Compilers). The Writings of Elliott Carter. Bloomington: Indiana University Press, 1977.

Stravinsky, Igor. Expositions and Developments. London: Faber and Faber Ltd., 1962. 1981 Reprint.

Thomson, Virgil. American Music Since 1910. London: Weidenfeld and Nicolson, 1970.

Thoreau, Henry David. Walden. London: The New English Library Ltd. (Signet paperback edition), 1960.

Tick, Judith. "Ragtime and the Music of Charles Ives." Current Musicology No.18, 1974, pp.105-113.

Williams, Peter. "Figurenlehre from Monteverdi to Wagner," Pt. I. Musical Times, vol. cxx, no. 1636, June 1979, pp.476-479.

Wolfe, Charles. Sleeve notes to the gramophone recording, "I'm On My Journey Home." Vocal Styles and Resources in Folk Music. New World Records No. 223.

Wooldridge, David. Charles Ives: A Portrait. London: Faber and Faber Ltd., 1975.

Published Scores (Keyboard).

First Piano Sonata. New York: Peer International Corporation, 1954.

———————. Revised and corrected reprint by Paul C. Echols. New York: Peer International Corporation, 1979.

Second Piano Sonata. First Edition. Privately printed. New York: 1920.
Reprinted New York: Edwin F. Kalmus (Kalmus Study Score No.901), 1968.

———————. Second Edition. New York: Arrow Music Press (Associated Music Publishers), 1947.

Five Piano Pieces. (Collected edition; also published separately with Editor's Notes to later reprints).
Varied Air and Variations. Edited by John Kirkpatrick and Garry Clarke ((1947)), rev. 1971.

Study No. 22. Edited by John Kirkpatrick. ((1947)), rev. 1973.

The Anti-Abolitionist Riots. Edited by Henry Cowell, 1949.

Three Page Sonata. Edited by Henry Cowell, 1949.

Some Southpaw Pitching. Edited by Henry Cowell, 1949.

Collection published Bryn Mawr: Merion Music Inc.1975.

Three Page Sonata. Revised edition by John Kirkpatrick. Bryn Mawr: Mercury Music Corporation, 1975.

Study No. 20. Edited by John Kirkpatrick. Bryn Mawr: Merion Music Inc. 1981.

Waltz Rondo. Edited by John Kirkpatrick and Jerrold Cox. New York: Associated Music Publishers, 1978.

Three Quarter-Tone Pieces. For two pianos/four hands. Edited by George Pappastavrou. New York: C.F. Peters Corporation, 1968.

Variations on "America" for organ. Bryn Mawr: Mercury Music Corporation, 1949.

"Adeste Fidelis"((sic)) In an Organ Prelude. Bryn Mawr: Mercury Music Corporation, 1949.

"The Celestial Railroad." For Piano. Derived in part from the solo and orchestral obbligati to the Fourth Symphony second movement. Full score facsimile edition. New York: Associated Music Publishers, 1965.

Microfilms — Source: The Music Library, Yale University.

Title	Ives Catalogue	Photostat Frame No.
Set of Four Ragtime Pieces.	pp.40-41.	2441-2482.
First Piano Sonata.	pp.82-87.	3678-3899.
Second Piano Sonata.	pp.88-91.	3900-4016.
(additions).	p.91a.	4017-4362.
Five Take-offs.	p.96	4774-4779.
Studies.	pp.97-99.	4780-4827.
Waltz Rondo.	p.100.	4828-4832.
The Celestial Railroad.	pp.100-101a.	4833-4863.
Three Quarter-Tone Pieces.	pp.103-104.	4969-5013.

Photostat Copies.

The Celestial Railroad.	First Edition printing (1920) with manuscript appended of "Hawthorne." Revisions of the movement's original materials together with new m.s. ideas. Source: New York Public Library, ex libris, John Becker.
Study No. 5.	Editor: Alan Mandel. Prepared for forthcoming edition, to be published New York: Associated Music Publishers.

****

N.B.

For numbers which refer specifically to the original photostat negatives (prefaced by "n" or "q") consult the footnote materials at the end of each chapter.

Gramophone Recordings.

Charles Ives.

The Complete Works for Piano. Pianist: Alan Mandel.
Desto (Boxed Set): DC 6458-6461. (rec. 1967)

Works for Piano (A selection). Pianist: Nina Deutsch.
(Consulted for a performance of the Four Emerson Transcriptions).
Vox (Boxed Set): SVBX 5482. (rec. 1976).

First Piano Sonata:-
William Masselos (rec. 1952) Odyssey 32160059.
William Masselos (rec. 1966) RCA Victor LSC 2941.
Noel Lee (rec. 1967) Nonesuch H 71169.

Second Piano Sonata:-
John Kirkpatrick (rec. 1945) Columbia ML 4250.
John Kirkpatrick (rec. 1968) Columbia MS 7192.
Aloys Kontarsky (rec. 1961) Time 8005/58005.
Gilbert Kalisch Nonesuch H 71337.

Charles Ives — 100th Anniversary.(Boxed Set).
(Containing recordings of Ives' own private performances at the piano).
Columbia M4 32504.

Chick Corea.

Piano Improvisations Volumes 1 and 2.
ECM 1014 and ECM 1020.

Henry Brant.

Music 1970. Desto 7108.

"Brave Boys" : New England Traditions in Folk Music.
New World Records, NW 239.

"I'm on My Journey Home" : Vocal Styles and Resources in Folk Music.
New World Records, NW 223.

The Sousa and Pryor Bands. New World Records, NW 282.

GENERAL BIBLIOGRAPHY

Books.

Apel, Willi. The Harvard Dictionary of Music. Second Edition, revised and enlarged. London: Heinemann Educational Books Ltd., 1970.

Bailey, Derek. Improvisation: Its Nature and Practice in Music. Ashbourne, Derbyshire: Moorland Publishing, 1980.

Benade, Arthur H. Fundamentals of Musical Acoustics. New York: Oxford University Press, Inc., 1976.

Cage, John. Silence. London: Calder and Boyers, Ltd., 1968.

Clifton, Thomas. Music as Heard: A Study in Applied Phenomenology. New Haven: Yale University Press, 1983.

Ehrenzweig, Anton. The Hidden Order of Art. London: Weidenfeld and Nicolson, 1967.

———. The Psychoanalysis of Artistic Vision and Hearing: An Introduction to a Theory of Unconscious Perception. Third Edition. London: Sheldon Press, 1975.

Helmholtz, Hermann. On the Sensations of Tone. Second English Edn. Edited by A.J. Ellis 1885. Reprinted by Dover Publications Inc., 1954.

Humphrey, Robert. The Stream of Consciousness in the Modern Novel. Berkeley and Los Angeles: University of California Press, 1955.

Kostelanetz, Richard. John Cage. London: Allen Lane, 1971.

Messiaen, Olivier. The Technique of My Musical Language. Volumes 1 and 2. Translated by John Satterfield. Paris: Alphonse Leduc et Cie., 1944, 1956.

Pole, William. The Philosophy of Music. Sixth Edition. London: Kegan Paul, Trench, Trubner and Co., Ltd., 1924.

Revesz, Geza. Introduction to the Psychology of Music. Translated by G.I.C. de Courcy. London: Longmans, Green and Co., 1953.

Sachs, Curt. The Rise of Music in the Ancient World. New York: W.W. Norton, 1943.

Samson, Jim. Music in Transition: A Study of Tonal Expansion and Atonality 1900-1920. London: J.M. Dent and Sons, Ltd., 1977.

Szabolcsi, Bence. A History of Melody. London: Barrie and Jenkins, 1965.

Smith, F. Joseph. The Experiencing of Musical Sound: Prelude to a Phenomenology of Music. London: Gordon and Breach, 1979.

Articles and Papers.

Ballantine, Christopher. "Charles Ives and the Meaning of Quotation in Music." Musical Quarterly, April 1979, vol. lxv, no.2. pp.167-184.

Blum, Stephen. "Ives's Position in Social and Musical History." Musical Quarterly, October 1977, vol. lxiii, no.4. pp.459-482.

Boatwright, Howard. "Ives' Quarter-Tone Impressions." Perspectives of New Music, Spring/Summer 1965, vo. 3/2, pp.22-31.

Dickinson, Peter. "The Achievement of Ragtime." Proceedings of the Royal Musical Association. Delivered at the 1979 Annual Conference at the Guildhall School of Music, London, Friday, 6th April, 1979.

First American Music Conference (Papers). The University of Keele. Conference held April 18-21, 1975.

Harrison, Lou. "On Quotation." Modern Music, Summer 1946, vol. xxiii, no.3. pp.166-169

Marshall, Dennis. "Charles Ives's Quotations: Manner or Substance?" Perspectives of New Music, vol. 6/2, Spring/Summer 1968. pp.45-56.

Merleau-Ponty, Maurice. "Cezanne's Doubt." In the collection: Sense and Non-Sense. Evanston: Northwestern University Press, 1964. pp.9-25.

Nettl, Bruno. "Thoughts on Improvisation: A Comparative Approach." Musical Quarterly, January 1974, vol. lx, no.1. pp.1-19.

Schoffman, Nachum. "Charles Ives's song 'Vote for Names'." Current Musicology, no.18, 1974. pp.56-68.

Starr, Lawrence. "Style and Substance: 'Ann Street' by Charles Ives." Perspectives of New Music, vol. 15/2, Spring/Summer 1977. pp.23-33.

Ward, Charles W. "Charles Ives's Concept of Music." Current Musicology, no.18, 1974. pp.114-119.

Williams, Peter. "Figurenlehre from Monteverdi to Wagner." Pts. II-IV. Musical Times, vol.cxx, no.1637, July 1979, pp.571-573; vol.cxx, no.1638, August 1979, pp.648-650; vol.cxx, no.1639. September 1979, pp.816-818. (respectively).

Theses and Dissertations.

Berlin, Edward Alan. "Piano Ragtime: A Musical and Critical Study." Ph.D. City University of New York. 1976.

Brooks, William. "Sources and Errata List for Charles Ives's Fourth Symphony." D.M.A. The University of Illinois. 1976.

Clark, Sondra Rae Scholder. "The Evolving Concord Sonata: A Study of Choices and Variants in the Music of Charles Ives." Ph.D. Stanford University. 1972.

Gratovich, Eugene. "The Sonatas for Violin and Piano by Charles Edward Ives: A Critical Commentary and Concordance of the Printed Editions and the Autographs." Mus.A.D. Boston University. 1968.

Magers, Roy Vernon. "Aspects of Form in the Symphonies of Charles Edward Ives." Ph.D. University of Indiana. 1975.

Sudlow, Paul. "The First New England School: An Historical Account of Sacred Music in America, 1620–1820." M.A. The University of Keele. 1977.

Ward, Charles. "Charles Ives: The Relationship Between Aesthetic Theories and Compositional Processes." Ph.D. University of Texas at Austin. 1974.

VITA:

Born March 13th 1949 at Ramsgate, Kent.

Graduate Diploma in Music Education (G.T.C.L.), Trinity College of Music, London, 1970.

Postgraduate Certificate in Music Education, London University Institute of Education, 1971.

Bachelor of Music (Honours upper 2nd.), Goldsmith's College London University, 1976.

Master of Arts in American Music, Keele University, Staffordshire, 1977.

At present, Lecturer in Music, Cauldon College of Further Education, Stoke-on-Trent, Staffordshire.

****

THESIS SUPERVISOR:

Professor Peter Dickinson, Head of the Music Department (1974-84), Keele University, Staffordshire.

EXTERNAL EXAMINER:

Dr. Wilfrid Mellers, Head of the Music Department (1964-83), York University.