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CREATIVE MUSIC IN THE CLASSROOM

by

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PREFACE

Some sections of this thesis, principally the first Introduction and a number of examples in chapters 3 and 4, are based on material I have already published in the book Sound and Silence (Cambridge University Press, 1970). The book grew out of the embryo stages of this thesis which in itself was based initially on work I had been doing in schools and Colleges of Education. As I extended the field, encouraging other teachers to explore with me the possibilities of creative music-making in the classroom, it became clear that some kind of handbook could be useful as a means of promoting work of this kind on an even bigger scale. Sound and Silence was the result: an attempt to provide an essentially practical guide based on ideas that were arising as work on this thesis progressed.

The emphasis upon the practical is important, for this is a thesis about helping children and students to do things musical in the classroom. It is in this spirit that I have continued and completed the thesis. It would not have been possible without the co-operation of a great many people. I must, therefore, acknowledge my debt to all those friends and colleagues who have

worked with me in these projects or who have encouraged and guided my explorations. Especially I should like to thank the many children, teachers and head-teachers from schools in Liverpool, Sussex and Yorkshire; the West Riding County Music Advisers and Inspectors; students and staff of the C.F.Mott College of Education, Prescot, Liverpool, Bishop Otter College, Chichester and The Department of Music in the University of York.

JP
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Accompanying material includes MS music examples, tape-recorded examples and photographs.

INTRODUCTION 1:

MUSIC IN A LIBERAL EDUCATION

The processes of art involve us in a two-way traffic of ideas and action. There must be a "reaching out of the mind" and there must be activity - which is what John Dewey said about learning. Conversely, education, like art, is "90% living": we live and we grow in perception and awareness. Our discoveries we make coherent in the symbolism of language, which in its broadest sense could include every form of expression, intellectual or intuitive, from primitive shouts and yells of ecstasy to the refinements of painting, poetry, dance and music in the high civilisations. In her Philosophy in a New Key Susanne Langer reminds us of our primary need for symbolism: it yields insight into "unspeakable" realities, and the emotive content of art will take us into those areas pre-rational and vital that have about them "something of the life-rhythms we share with all growing, hungering, moving and fearing creatures: the ultimate realities themselves, the central facts of our brief, sentient existence."[1] It is here, perhaps, that the processes of art and education join hands.

. . .

Alan, aged six, moves stealthily across the classroom. He is the Wolf creeping out of the deep, dark forest. As he creeps he makes music, a pattern of mysterious taps and scraping sounds which tell us that the Wolf and the forest are sinister and fearful. No-one has instructed him: Alan chose the drum himself and decided for himself how the Wolf's music should go. As he creeps slowly across the room, he is lost in the world of his imagination, intensified by the music he is making.

Two students at a College of Education are playing music which they have painstakingly evolved for piano and drums. The lid of the piano is removed and Leslie gently strokes the strings inside with the flat of her hand. Catherine's drums reply, softly and sensitively. The music builds. It is coherent. They know now exactly where it must go. As they play the piece becomes theatre; their sensitivity to the sounds is reflected in their movements. Before this morning neither of them had ever thought of creating music. They chose to do this, decided on the sounds they wanted to explore, and have worked these sounds over and over until they have become the right sounds, the only possible sounds through which to say what has to be said. By this time tomorrow their piece will be refined and carefully notated in a system of their own inventing. They will have thoroughly explored their own music and have met on the way with the music of Cowell and Stockhausen. They will not have been taught anything: can we say how much music they will have learned?

Why do we teach music anyway? It is easy to see that it has a place in the curriculum but its precise role is often far from being clear, even to those most closely concerned with it. There are so many musical things we could be doing. Whatever we do will add something of value to a child's education but the results are possibly more valuable when music is tied in with other aspects of school work so that it makes sense in the total pattern. This is the point at which music in education so often seems to fail.

Apart from those of us who are concerned with certain clearly defined skills such as the techniques of playing musical instruments, the work of most teachers in schools is essentially a contribution to the general education of children. Even if a teacher is appointed to a school as a 'music specialist' or a 'science specialist' his first duty is still the education of the whole person. He makes a contribution to this 'total education' through the medium of his own subject. Moreover, he must not gear his work to the abilities of the gifted few, but should find ways of using his specialist knowledge to serve the education of all the pupils in his classes. Borger and Seaborne in The Psychology of Learning point out that the function of a school is not "the handing out of a self-contained and complete parcel of knowledge" but rather " the preparation for a process which is intended to continue throughout life".[2] Those who are concerned with the general curriculum of our schools must surely believe that young people deserve a truly liberal education alive with the excitement of discovery. This excitement is the first step: the details, disciplines and skills will follow, but without a sense of adventure true education is impossible.

Education should be more than a series of specialist boxes filled with things to be memorised, for "where education stresses the accumulation of information and specific skills, conformity is probably encouraged, with a consequent reduction in spontaneity. There can be no doubt that a serious problem of modern education rests in this very point. The successful student is all too often the one who loses his

own independence of thought by sticking closely to text-books and the ideas advanced by the instructor, thus learning to apply mechanical techniques to ready-made problems".[3] There are many who would still regard the development of sensitivity and imaginative exploration as appendages to the real business of learning. If we will make our teaching child-centred and start from the needs of the individual, then we may see our 'subject', not as a collection of perfected disciplines, but rather in terms of areas of experience which embody some of the most fundamental human reactions to life. We can't teach history as a thing all by itself: it is concerned with people, their way of life, their reactions to their times and their relationship to us and our own times. Once we start looking at people we must consider not only how they live but where they live. Geography is inextricably linked with history and begins on our doorstep with a close look at our own immediate environment and what this means to us and to those who have lived here before. Investigating our environment brings us face to face with the wonder and excitement of discovery. This is the mainspring of any work in the sciences and mathematics. When we look closely at nature and are filled with wonder by its intricacies we are often moved and must find a way of expressing our feelings. And so we need symbols of art and language, not only to communicate ideas and emotions, but to confirm our own understanding, our reaching out. The value of anything we learn in school lies in the extent to which it helps us respond to the world around us. Our 'subject' cannot live in a box by itself, a set of disciplines and techniques unrelated to anything else. It is part of

the wide field of human experience and needs to be understood in that context first. The liberal education of which we are thinking implies a breadth of understanding and experience that will be possible only when we make conscious efforts to remove subject barriers. This must be especially true of relationships between the arts. Indeed the justification for the arts in education may well be that, as someone once said of painting, in the end it is all "an attempt to answer the question 'what does it mean to be a human being?'".

What can music contribute to this search? It can give immense pleasure to the listener and to the performer. This side of it should certainly not be neglected. However, it is as a creative art that music is beginning to play an increasingly important role in education. Like all the arts music springs from a profound response to life itself. It is language and as a vehicle for expression it is available in some degree to everyone. If a child is to grow in awareness of himself and his world he will need to be articulate. The very processes by which we become articulate deepen our perception. Perhaps we should place slightly more emphasis on creative music in schools than we have been doing. Music is a rich means of expression and we must not deny children the chance to use it.

Society has always produced artists, poets, and musicians. They train our eyes and ears. Rarely do we look at things as closely or as intensely as artists do. They see the beauty in nature and their intuition and skills define it

in terms we can understand. Sometimes this definition is in the form of an abstract elaboration of nature's patterns or an occurrence in human life. At other times it is more clearly a record of something seen. But the artist does more than make a record: he projects feelings into his materials - paint, wood, stone, words, movement, sound or whatever - until the materials become like the reality of his imagination. Through his work we feel what he feels; we see with his eyes and hear with his ears. Henry Moore shows us new ways of looking at the human figure. Through his work we begin to appreciate forms we had never before noticed, though they were always there in nature. A song such as the Beatles' Within You Without You may have done much to arouse popular interest in Indian classical music among young people in the West, an interest that for many would have opened gateways not only on a 'new' wealth of music but also on philosophical concepts very different from inherited western ones. On another level Picasso, in Guernica, painted during the Spanish Civil War, draws our attention to the suffering of ordinary people in time of war. The picture is at once a powerful comment and a terrible warning. Similarly the composer is able not only to make us aware of new qualities of sound but through his use of his material to say something to us about the great issues of existence. So Benjamin Britten in his War Requiem sees a relationship between the ancient text of the Requiem Mass and certain poems by Wilfred Owen - a relationship no-one had seen previously. This is at the core of his comment: his musicianly skills are devoted to the presentation of this relationship which any one of us

might have seen - but didn't. Nearly half a century earlier Wilfred Owen had recognised the urgency and importance of his own task when he wrote, "My subject is War, and the pity of War. The Poetry is in the pity. All that a poet can do is to warn".

Artists of all kinds function as visionaries and as commentators. They do more than merely entertain us or delight us. We rely on them to help us come to terms with life and its problems. In this context it would be reasonable to suppose that the art which should be most relevant to us would be that of our own time. We need the professional artist but at the same time we must cultivate the artist within ourselves, for we all have something of that child-like innocence which is the characteristic of the artist's mind. It reveals itself every now and again when quite familiar things suddenly appear fresh and new. We must not stifle this innocent eye or ear: our understanding of the professional artists' work may depend not a little on our ability to participate, however humbly, in what they are doing.

When, in school, we involve children in the creative use of language or the materials of visual art,we are encouraging them to think like poets and artists. So much of modern education begins with children's natural interests and knowledge is acquired as much through feelings as from information. In such a climate the arts take on a new importance. They are accepted as ways of saying what we feel. We all have the capacity to perceive, reflect and express. We all have the capacity to create.

The materials of music are as available for creative ex-

ploration as the materials of any other art. However, this seems to be an area of activity where music has not kept pace with other school subjects. When the Plowden Committee reported on Primary School education in England they said they had found the planning of music as a creative subject lagging behind work in language and the visual arts and crafts.[4] One wonders why. What is it about music, or about us as music teachers, that makes us ignore the opportunities others have taken?

If any one aspect of education today is characteristic of the whole it is probably the change of emphasis from children being instructed to children being placed in situations where they can learn for themselves. Turning again to Plowden we find a group of HMIs commenting:

> "The newer methods start with the direct impact of the environment on the child and the child's individual response to it. The results are unpredictable, but extremely worth while. The teacher has to be prepared to follow up the personal interests of the children who, either singly, or in groups, follow divergent paths of discovery." [5]

Is it significant that when, later in the same paragraph, they detail the many facets of the curriculum which may be covered by such an approach, literature and art and craft are included but there is no mention of music? We cannot fail to be aware of the ways in which teachers of English, drama and the visual arts have found the new ideas stimulating. They have used them as springboards for a great deal of very exciting work. Music, on the other hand, has

tended to go its own way and remains largely unaffected by recent moves in education. More often than not school music has concentrated on the skills of performance. Even much so-called 'creative music' is really only an extension of directed ensemble performance. Of course these skills are important. Performance is an essential musical activity; but it is not the whole of music.

Many years ago Marion Richardson and Herbert Read began to show the schools how art in education should start with what the individual has to say. They saw education taking place through art without in any way destroying the values of specialist Art Education. In school, necessary techniques can be developed through the self-directed exploration of materials. In 1938 Marion Richardson wrote, in connection with an exhibition of children's art at County Hall, London, "The artist discovers in the world around him (that is to say, in his raw materials) relationships, order, harmony - just as the musician finds these things in the world of sound. This cannot be done by the conscious, scheming, planning mind. Art is not an effort of will but a gift of grace - to the child at least, the simplest and the most natural thing in the world. Whenever people are sincere and free, art can spring up."[6] There must be between teacher and child a partnership in this work; both are explorers. It is a "disciplined activity in which the teacher's own imaginative gifts play a very important part". Marion Richardson's reference to "the world of sound" is interesting, and Herbert Read, quoting her words, remarks that although

"These words were written with the teaching of drawing and design in mind...they apply equally well to the other three branches of education - music and dancing, drama and craft". Read so often comes close to giving us a blueprint for creative music in education. It is natural for him, when writing of art, to include all the materials of expression, sounds not least, and to see all areas as inter-related. Art, he says, is "mankind's effort to achieve integration with the basic forms of the physical universe and the organic rhythms of life. All forms of play (bodily activity, repetition of experience, phantasy, realization of environment, preparation for life, group games - these are Dr Lowenfeld's categories) are so many kinaesthetic attempts at integration, and from this point of view are akin to the ritual dances of primitive races and like them are to be regarded as rudimentary forms of poetry and drama, with which are naturally associated rudimentary forms of the visual and plastic arts".[7]

Elsewhere he suggests that "there exists within the mind of the child, no less than of the adult, a psychic process or activity, taking place below the level of consciousness, which tends to organize the irregular or rudimentary images present in the organism into a harmonious pattern....The corollary to this proposition, making it relevant to our educational interests, is that psychic equilibrium...is only possible when this integration of formal elements below the level of consciousness is allowed or encouraged to take place, which it notably does in all forms of imaginative activity - day-dreaming, spontaneous elaboration of fantasy, creative expression in colour, line, sounds and words." [8]

Read did as much as anyone to create a climate within traditional education in which the ideas and work of great teachers like Marion Richardson could spread. The same climate has enabled creative drama to flourish under the inspiration of Peter Slade and others. Here again, real experience is taken as a starting point, and bodily movement, gesture and language are the materials for experiment and expression. We have grown used to this kind of work: it has been with us for twenty years or more. Relatively more recent are the new attitudes to the creative use of written language in schools. This was heralded by the work of Sybil Marshall, Margaret Langdon and David Holbrook, all of whom have encouraged children to write about things they feel deeply. As David Holbrook says in Children's Writing, "...the process depends upon 'whole experience..'"; the writer is " working on his inner world".[9] It is not surprising that when the Plowden Committee came to look at this aspect of education they found the amount and quality of children's writing "perhaps the most dramatic of all revolutions in English teaching. Its essence is that much of it is personal ...and the writers are communicating something which has really engaged their minds and their imaginations".[10]

In art, drama, dance and creative writing children are using a variety of materials as language for expression, not of second-hand ideas, but of things that are close to them and real to them. What is more, the language they use is a living language. That is, it embodies in essence many of the techniques and attitudes of contemporary art and literature. On the classroom walls we can see paintings

which reflect the work of painters like Jackson Pollock, Paul Klee and Ben Nicholson. Children who have experimented in this way would certainly be the better equipped to approach the work of our contemporary artists. Quoting examples of the creative writing of young people in a variety of Secondary schools, David Holbrook suggests literature which he feels they would appreciate, having themselves come to terms in words with similar experiences. His suggestions include work by Joyce, Lawrence, Hemingway and Eliot. The boys and girls we teach rarely seem to find difficulty with the language of today's art. Perhaps this is because they have an outlook which chimes in with the liberalism of the twentieth-century artist. They too are prepared to follow many paths and search in many directions. Fortunately there seem to be teachers, especially in art and English, able to help them in their search and encourage them in their explorations.

With so much to encourage us it is sad to see music teachers holding back. There are some who believe music to be so completely different from other art forms that there can be no comparison in approach. For example, Watkins Shaw who, in Music in the Primary School, instances the "important and significant work being done in educating children through the arts, work whose prophet is Herbert Read". Shaw recognises that "By means of freely offering children means of self-expression in various creative media without first teaching technique or skill, very remarkable results have been achieved". But he goes on to say that "music does not seem to offer the appropriate opportunities for children's self-realization on these lines" principally

because "There is in music no form of creative work which does not require technique". [11] But would this not be equally true of painting or work in clay or wood? What are techniques but ways of handling materials? And cannot some of these ways be found at first-hand? While it would be foolish to turn our backs on all previous exploration and development and refuse to teach any specific skill (especially as in certain cases a skill will in itself be a stimulus to create music), nevertheless there are many simple techniques in the use of music's raw materials which can be discovered as we explore instruments to make music. They may be rudimentary at first, but so will first attempts in paint or clay, dance, drama or words. We recognise as much in these other areas; why then should we expect musical sophistication from the start? And does it really help to develop children's musical imagination if we begin by imposing on them our own 'developed' concepts and techniques of music? Is it possible that there is a vital stage that comes before the techniques, the stage of having <u>something to say</u>? Here, however rudimentary the level of exploration and discovery, the processes will be no less than those at the root of any artist's working methods.

Where a child is learning to play a musical instrument we might reasonably expect to find more adventurous improvisation. Children should be encouraged to play well but at the same time to keep alive a curiosity about the instrument's possibilities. For a lot of children the sense of adventure with a musical instrument is entirely bound by the limits

of techniques learned so far. They may even be positively discouraged from exploring beyond these techniques. No-one would want to suggest that the laying of good foundations is unimportant. Learning to play the violin, for example, must mean constant care with hand-shape, bowing, intonation and so on. Even so, there should not really be a gap between the instrumental lessons, usually taken outside the school's general curriculum, and creative experiment in the classroom. Instrumental skills can only help but they should not become fences which hem in or prevent imaginative exploration, for it is as a servant of the imagination that we develop any technical skill.

Music-reading in particular seems to be a skill that has a large number of attendant problems. The teaching methods vary tremendously and the results are equally uncertain. Progress is usually slow and where a pupil does master the traditional signs of western music-notation so that he is able to make extensive use of them both in writing and reading music, he probably does so because he is having lessons on an instrument. Rarely does school class music teaching alone succeed in giving pupils more than the most limited knowledge of notation. In the majority of cases the very most that we might expect to find would be an acquaintance with pitches in the treble stave and rhythmic patterns of the very simplest order. As important as the skills of music-reading undoubtedly are, they touch only a small proportion of children in schools and they do not appear to do much to encourage independent exploration of music or to increase creative work. In the

circumstances it is difficult to see how we can hope to find "appropriate opportunities for children's self-realization"on the lines suggested by Herbert Read if we insist on music-reading as a basis of school music-making. Watkins Shaw believes there can be "no true musical education which does not address itself to the task of mastering it [notation]". But he also feels that this should not be the sole aim of musical education.[12] The trouble is that as a class activity the effective "mastering" of musical notation must take up a lot of time if in the end the pupil is to have anything he can really use. Obviously this is a matter of approach. In a UNESCO report on Music Education John Horton put the matter in perspective when he said, "In teaching musical skills there can be no successful attempt at intellectual analysis, formulation, and recording in graphic symbols until a mass of sense impressions has been acquired...The reading and writing come much later. What is surely to be avoided is the premature teaching of abstractions however attractively it may be possible to present them...The teacher cannot afford to let himself forget that notation is only the servant of musical creation and interpretation".[13] In our own time many composers have found the traditional notation inadequate. They have been forced to evolve new systems, many of which use graphics created afresh for each new work. Notation is not music. The sound comes first. If children want to write their music down that may be the moment to teach some of the conventions but we must beware of killing the music's spontaneity. It might be better initially to let children invent their own notations or adapt the conventions in some way. After all, notation is a continually evolving

thing and even the apparently established symbols of western music have varied slightly in meaning from one period to another in their relatively short history. As with a lot of music by twentieth century composers, the music children make will sometimes contain complexities which are beyond the traditional system. Their music is going to require its own notation, and this is surely to be encouraged, especially where creative experiment in music is a parallel to work in English and Art. The techniques used by twentieth century composers are comparable with the techniques used by their contemporaries in other arts. There are similar diversities of style. A musician's imagination is stirred by many things: the technological achievements of science; post-renaissance philosophies and traditions which make us what we are; a desire to reject the world as it is and begin again from primitive roots. The artistic techniques of our time are relevant to our situation because they grow from it. They should, therefore, find a place in the work we plan for our classes in schools. John Cage has pointed out that we can take advantage of the possibilities of new music only if we are willing to change musical habits radically. "One may fly," he says, "if one is willing to give up walking." [14] Certainly the "lagging behind" for which we are criticised by Plowden suggests that our classroom music has been rather pedestrian.

Creative music in education is one more aspect of language. It is a way of saying things which are personal to the children and young people who make the music. It implies the freedom to explore chosen materials, as far as possible without

the control of a teacher, though certainly not without his encouragement. The teacher's role is to set off trains of thought and to help the pupil develop his own critical powers and perceptions. The processes of composition in music, as in any other medium, are selection and rejection; evaluating and confirming the material at each stage. To begin with it is essentially an experimental situation. The knowledge gained cannot be acquired from a text-book but only through practical experience. There is no reason why this kind of creative experiment should not go on throughout the whole period of general education. There is a danger that we may look on experiment of this kind as something unworthy of older children, a 'play' activity that properly belongs in the Infant school. But Stravinsky's words, "fingers are great inspirers", remind us of the composer's need for first-hand contact with the sound he is going to use. All his life he may, to some extent, feel the need to go to his materials as a prelude to the act of composition. Many of us can remember the excitement of discovering, at a very early age, how certain chords our fingers found at the keyboard were satisfying while others sounded ugly. This is something which every child should be allowed to discover for himself. We can begin to explore creatively at any age, for the first and last 'rule' in making music is the ear. It is our only guide in evaluating the sounds which express things we want to say. The <u>true</u> 'rudiments' of music are to be found in an exploration of its materials - sound and silence.

INTRODUCTION 2:

MATERIALS AND METHODS - LEARNING FROM THE PRESENT

By now we have probably reached that point which John Cage forecast in his book Silence, the point where disagreement is about the difference "between noise and so called musical sounds" rather than, as in the past, between dissonance and consonance.[1] All sounds are a composer's raw material. Debussy felt the divide had been crossed in his own time: "Any sounds in any combination and in any succession are henceforth free to be used in a musical continuity."[2] More recently Witold Lutoslawski has spoken about the musical potential of natural sounds. In a BBC Third Programme talk[3] he discussed the aesthetic aims of the avant garde and their attempts to extend the vocabulary of musical sounds. "The difference," he said, "between certain recent works and, for example, the music of Webern...seems greater, more fundamental, than the difference between Webern's music and that of the Baroque period. These phenomena concern one of the most essential elements in music - the nature of the sounds used in its creation." Bach used the sounds of the Equally Tempered Scale, and so too did Webern. "Techniques and forms, styles and tastes, have undergone tremendous changes in the course of the last few centuries, yet the basic tonal material has always remained the same: these eighty or do sounds. That, probably, is why the Equally Tempered twelve-note system has so firmly rooted itself in our consciousness and habits. It is probably the reason, too, why so many of us identify this system with the very concept of music itself, and why, at the moment when this system is being questioned and when works are appearing that have very little in common with it, we hear the question, 'Is this music?'." It is certainly a

question asked by many teachers who would like to encourage children to experiment creatively with sounds. They are frequently doubtful about the results, inhibited perhaps by their own musical background. They might find encouragement for themselves in the exploratory methods of a number of twentieth century composers. Christian Wolff, writing about the new music says, "The procedure of composing tends to be radical, going directly to the sounds and their characteristics." [4] This need not imply a complete rejection of former procedures. An atmosphere which allows composers the freedom of a wider variety of resources does not automatically exclude the continued use of established materials. The break with the past that Lutoslawski sees as having happened somewhere between Webern and our contemporary avant garde may not be as dramatic as he supposes. A very large number of composers still use the notes of the Equally Tempered scale, perhaps to the dismay of other composers such as Harry Partch who points out that "Music systems are made valid - and workable - by significant music." [5] For this reason, if for no other, the Equally Tempered twelve-note system has been "so firmly rooted in our consciousness." There would seem to be little point in regretting the huge quantity of "significant music" that has made our twelve-note system valid, at the same time we can observe the changes that have come to music and recognise that in one way or another composers have always gone "directly to the sounds and their characteristics." To search for new sound possibilities is not new. The balance between the quest and consolidation in a composer's work is a fine one and depends on the many factors which go to make style.

Jon Appleton, writing in The Music Review in 1966 and, like Lutoslawski, concerned with the apparently fundamental differences between today's music and music of the past, suggests that it is all a matter of style. Style, he says, "is a set of values determined by a fixed order of syntaxes... Some music now being composed...has much in common with the music of the past...a set of values that places above all else a syntax of tone-relation. The innovations of Arnold Schoenberg were simply drastic alterations within the dominant syntax. The most recent stylistic change has placed in the position of prime importance a syntax of timbre. Many of the new instrumental works are simply controlled plateaus of colour. This effect is accomplished by creating new ways in which to play traditional instruments. This unusual handling of traditional instruments has developed from a few colourful effects into a music that organises itself around timbre."[6] If we really do have a music that is organised around timbre may it have come about partly through a drawing together of music and the theatre arts? So much dramatic music depends for its effects on the 'colour' of sounds. Stravinsky's opening of The Rite of Spring with a naive Lithuanian melody played by the bassoon in its highest register produces immediately an atmosphere of mystery: "These astringent sounds take us back suddenly to the atavistic remoteness of a prehistoric world."[7] It is the timbre which moves us every bit as much as the melody itself.

The poet Paul Valery said that "an artist's inspiration is his material." As often as not a professional composer writes for a specific group of performers and he will almost certainly go first to "the sounds and their characteristics."

He makes music for what is available and at least some of his ideas may arise from the sounds he has at his disposal. It has always been so, and whatever the dominant syntax of a period a composer's musical ideas cannot be fully realised outside the special characteristics of the sounds he wanted. We may arrange music for instruments different from those the composer had intended but if we do we no longer have his music. An orchestral scoring of an organ fugue is a new work, as a photograph of a painting is a new work. The maker's handling of his ideas is bound to be tied in with the materials themselves, in the case of music with "the sounds and their characteristics." "The very unevenness of the hand-horn, with its faintly muffled quality on chromatic notes (and certain others), is an integral part of the music's conception, and thus a downright necessity if the character of the music is to be properly realised and conveyed: this goes for Mozart's four concertos...It is as important that we should hear the hand-horn here as that we should hear the harpsichord in the Italian Concerto: the instrument, warts and all, is part of the music. The 'improvements' of the valve-horn are not improvements when they destroy something of the music's nature."[8]

Nevertheless, coupled with acceptance of sound resources as he finds them is the composer's sense of adventure which compels him to press forward with the discovery of new sound possibilities. Paganini's extension of violin technique led to virtuoso exploration of other instruments, notably the piano. The outcome of this was an extension of the piano's range. The exploration of the violin's resources

continues: the Polish composer Krzystof Penderecki has worked out a lengthy catalogue of sounds, many of them until now unused, which can be produced by stringed instruments. From them he has made his Threnody: To the Victims of Hiroshima. His 'catalogue' includes the highest sound of the instrument without defining its pitch, sounds played between the bridge and the tailpiece, and sounds made by playing on the tailpiece. By alternating and combining these new resources with traditional violin sounds, arco and pizzicato, Penderecki can produce unusually colourful networks.

Numerous instances of this kind of exploration occur in music today: "The violinist now bows across the tailpiece, strikes the instrument with the nut of the bow, and blows across the strings. The clarinettist violently fingers the instrument without blowing into it, or if he does blow into it, it is only the mouthpiece disconnected from the rest of the instrument."[9] It is all part of the restless search through the materials of expression which is an essential element of the arts as a whole. Composers search now among all possible sources of sound, some offering control, others less easy to regulate: "...the violin and the clarinet were created as melodic instruments and their vocabulary of sounds outside their melodic use is very small...Composers, having discovered that a music can be organised by a syntax of timbre, have turned their attention to the electronic media."[10] Long ago John Cage wrote confidently, "I believe that the use of noise to make music will continue and increase until we reach a music produced through the aid of electrical instruments which will make available for

musical purpose any and all sounds that can be heard."[11] With the invention of some very complicated electronic apparatus we seem virtually to have reached that point.

But this has not halted the search neither has it caused composers to abandon conventional instruments. If anything the use of sound sources other than electronic ones seems to be broadening all the time. In practice a composer cannot easily manipulate "all sounds that can be heard". He must start by imposing on himself some limitation of area. So on the one hand we may have the electronics studio, while on the other a composer explores and uses the everyday sounds of nature which "very rarely have anything in common with the sounds belonging to the twelve-note scale...sounds such as the murmur of the sea or the song of the skylark. These... are commonly regarded as beautiful in every sense of the word...yet, from the point of view of their structure, they bear far less resemblance to the twelve-note scale than does many a daring product of our contemporary avant garde composers."[12] Thus Lutoslawski who sees the present day search for a new repertoire of sounds as "entirely natural." Cage too: he wants to "capture and control these sounds, to use them not as sound effects but as musical instruments."[13] And then Partch who takes another route away from the twelve-note system, making new and fantastic instruments to revivify ancient and apparently by-passed music systems, his giant marimbas, kitharas and cloud bowls uniting Eastern and Western cultures. In today's music there is so much that should encourage teachers to help children begin their own exploration of sounds.

Diversity of style can be bewildering but not if we accept that it is largely due to a broader view of what may constitute music's basic resources. The spirit remains unchanged and technique is fundamentally what it always was: a discovery of "the ground of the sounds employed"[14] and from there doing what we can with what we have. The composer manipulates his ideas and his materials and the growth of his skills is technique. To begin with he must have something to say. Murray Schafer in The Composer in the Classroom calls this first stage 'intention'.[15] Defining intention will call for a sorting-out period in which purpose, sound-resources, scale of the work and perhaps the individual talents of specific performers will all be reviewed and will interact with one another. Out of this may grow a time of experimentation, the composer trying out a variety of possible approaches, perhaps literally 'playing' with his sound materials.

The whole process is an adventure. Indeed it must be, for a sense of adventure is essential to creative action. Something of the excitement and the anticipation of "'unspeakable' realities" can be felt in the words of Edmund Rubbra: "Music is in the subconscious waiting for us to discover it. Composition is the conscious act of revealing it."[16] It is doubtful whether we can ever really know what music is all about until we share this excitement and delight in discovery.

> "I purposely stress this element of delight in the grasping of beauty, for delight pertains to the very essence of beauty...Unless we delight in and are moved by a work of art, we may thoroughly discuss and analyse it but we shall never understand it...It is necessary to make clear for the under-

> standing of the pupil the inner logic of a Mozart Sonata...but it is first necessary for the pupil to hear the Sonata, and be delighted in it, and love it with his ears and with his heart."[17]

We can observe creative delight in the published anthologies of children's writing such as The Excitement of Writing.[18] We can see it in a great deal of children's art and in their classroom work in drama. The materials are different in each case, and in music they are different again, but the 'methods' have many things in common, especially at the most fundamental level. And after all, the most difficult stage is often the first one: getting started. A sense of adventure will spur on developments in technique and craftsmanship but above all it will get us started.

Perhaps we begin by thinking of something outside music: a section of an improvised drama which could be heightened by the addition of music; an idea taken from a poem or a picture; something already explored in creative writing; or simply an adventuresome conversation between teacher and class about something seen. Children will need some time to play with sounds and discover what is possible. The most appropriate time for this would be in the Infant School. It's a stage that should not be hurried. Eventually the teacher must help the children to be conscious of what they are doing and to use their discoveries positively. Integrating exploration of sounds with other activities is just one way in which this can be done. Eunice Bailey describes this kind of approach when she is writing about music made by children for a dance-drama: "Alan:'Can you hear the music

of my space children, the space creatures? That's you, Jim, your tune on the chime bars.' As the spacemen advanced slowly towards the 'creatures', Robin rubbed two cymbals together in a circular motion. His pace became faster and faster towards the climax - a clash of cymbals - when Arthur leapt upon the three girls and sent them flying away. As the play went on, a curious and spontaneous link appeared between those who moved and acted, and those who made the music. This combination and use of sounds was genuine creative music, even though its character might seem strange to adults."[19] All the elements of art are there: it is a symbolic game and the two groups are makers while being at the same time 'spectators' for one another. G.F. Hartlaub suggests that play becomes art the moment it is directed to an audience.[20] Once children begin to feel the possibilities in the sounds they will explore more adventurously. Again in Eunice Bailey's book we can find record of a child's experimenting: "'You know,' said Alan, 'if you work one cymbal round and round on top of another one it makes a lovely hushing noise. You see!'"[21] That is just the kind of excitement that must be at the root of every composer's work. We build on these discoveries more strongly than on information 'fed in' by others. "This way one finds courage and a sense of necessity," says Cage[22] who seems to have said so many things that are relevant to our work in the classroom - and out of necessity grows technique. Recognising the need also guarantees that exploration and improvisation may be free but not anarchic.

In the chapters that follow we shall be looking at examples

of music made by children and young people in schools and colleges. In just the few years that have gone by since the first of these recordings was made there has been an encouraging wave of interest in creative music in education. That which only a short time ago was thought to be impossible without a prior knowledge of conventional music techniques has become a reality: in many schools now children do make music which is truly their own. More teachers are looking to the work of living composers for guidance on materials and methods. But still it is the teacher's part that has the greatest problems. We are so often afraid that important things will get left out and so we tend to engineer things. Perhaps what we need is a little more humility so that music - which need not always be complicated and 'difficult' can begin to happen.

> "This growth [Education] is spontaneous, and we, the adults, must watch it happening...Within all the active encouragement we give to children, there are times when we should learn to stand back, waiting for them to discover unknown depths of experience and to express these things creatively."[23]

> "It is better to make a piece of music than to perform one, better to perform one than to listen to one, better to listen to one than to misuse it as a means of distraction, entertainment, or the acquisition of culture."[24]

"Now that things are so simple, there's so much to do."[25]

1 - FOUNDATIONS

"Learning is active: it involves a reaching out of the mind." - Dewey

Between the ages of four and six speech is linked with action. The 'play' activities of an Infants school Reception class are fundamental to the growth of language and understanding. The presentational symbolism of artistic 'language' should be developed alongside the discursive symbolism of words and numbers. So we encourage little children to explore in their own ways the worlds of words, colours, shapes, materials, objects and their relationships, and sounds.

The most natural sounds to experiment with are vocal ones, but because they are part of us it's not very easy to be aware of what is happening. In the school playground children sometimes run about shouting for the sheer joy of the noise they can make, and these sounds will increase their excitement, especially when the shouting goes with leaping and running. They can't very well do that in a classroom but in any case experimenting with sounds on musical instruments is in some way more definite than what we do with our voices, perhaps because in most cases to make an instrumental sound we have to do something we can <u>see</u> - put out a finger and pluck a string, pick up a beater and strike a bar, or use a stick to bang a drum.

Good musical instruments are expensive and very few schools seem to have much money to spare for that kind of thing. Nevertheless, if a Reception class provides children with opportunities to experiment with clay, paint, sand, water, waste-materials, together with a Wendy House, 'shop'

and number apparatus, then a few instruments of good quality should be possible too. A variety of timbre is more important than a large number of instruments. We could, of course, use anything that would make a sound. We could collect pieces of metal and wood and hang them on a frame so that they make a sound when hit. We could make simple musical instruments like those described by Kathleen Blocksidge[1] or the bowed and plucked psalteries designed by Ronald Roberts.[2] But it is probably better to begin with professionally made instruments. Percussion is the simplest - wood and metal of various kinds which can be struck with different kinds of beater: soft-wood, hard-wood, felt-head or rubber-head. The most useful things to have would be a xylophone, a glockenspiel, some chime bars, perhaps a metallophone, and a large cymbal on a stand. Later we could extend the range of timbres by providing some home-made things; perhaps some stringed instruments that could be plucked or played with a bow. Drums of different sizes would be good: the Orff timpani and tambours are very suitable.

Having the instruments, the children must be allowed to play with them in any way they want to, to see what the instruments can do. This is not a stage to be hurried through. During this 'preconceptual' stage (from approximately four-and-a-half to seven years of age) children are learning by sense impressions. They need time to assimilate these impressions. Little children are egocentric and for the most part they will be conscious only of the sounds they are making and oblivious of others making sounds on musical instruments around them. On rare occasions children will be caught up

in a rhythmic unity while playing on instruments in a group, but it will not last for long and as a corporate experience of music-making it seems to make little impression on individuals. Children aged between five and six are probably not ready for organised group music-making. We may do more harm than good if we try to drill them into playing together in bands.

Imagination, on the other hand, is strong at this age and language is developing. Action is essential and even a seven year old will often find it easier to 'talk' with his hands and body. Recorded music can be used as a stimulus for imaginative movement and this is probably of greater value than trying to get children to dance with the music. The children can begin to use instruments to accompany movement and drama. At five and six years old children's imaginative games can be very involved. They are learning about things and people by internalising actions, a process which usually develops rituals as objects and events are represented symbolically. The addition of musical sounds to represent ideas and events, characters and actions could help to develop awareness of music's powers. In schools where work is organised on an integrated-day pattern there should be plenty of opportunities to introduce the use of musical instruments to add another dimension to what is being done.

In the Infant school creative experiment in music will in the main be a matter of developing interest in the variety of sounds available; of encouraging discrimination between sounds, both in pitch and timbre; and of beginning, in very simple ways, to improvise music of mood or atmosphere for

drama or to heighten the characters and events in a story. As to the nature of the music itself, it will generally be centred around timbre, particular instruments representing people, animals or things. Rhythms will tend to be free and primarily associated with actions being described. There will probably be very little evidence of repeated rhythmic patterns.

GROUP 1 - the Reception class of a Liverpool Infants school. The work described below took place between September 1963 and Christmas 1964 when the children were all between five and six years old. The school is in the middle of a large council estate built in the mid-30s. It is a single storey rectangular building, the classroomsopening on to a covered way which surrounds a central garden quadrangle. One end of the building is the Junior school; the other end is the Infant department. Each has its own school hall and staff rooms and each has its own Head teacher. The covered way provides good opportunities for children to take materials and equipment outside the classrooms and in general the Infants department looks like some more recently built 'open-aspect' schools. But so open an arrangement does mean that classes may easily be disturbed and it calls for quite a lot of tolerance between teachers, and between Infant and Junior schools as a whole. This is important to what follows. Teachers sometimes make excuses for not allowing children freedom to experiment with sounds on the grounds that it disturbs neighbouring classes. The general atmosphere of tolerance brought about by the physical arrangements of the school we are discussing made it all the more easy to introduce the work in music.

The Infants school began each morning with a period of

creative activities which lasted from 9.00 a.m. to 10.00 a.m. After a short assembly at 10.00 a.m. and a break, the rest of the morning and the first part of the afternoon was given to basic skills - number and reading. 2.30 p.m. to 3.30 p.m. - the final hour of the school day - was another period of creative activities. During the two activities periods the children worked in small, self-formed groups with a wide choice of things to do: clay, dough, sand, water-play, large wooden blocks and shapes for building, paint, waste-materials, sewing materials, Shop, Wendy House, and any number of special activities introduced on occasions and linking work in several media. Musical instruments had not been generally available, so in September 1963 we made a Music Corner.

Many Infant classrooms have Music Corners. Teachers provide a selection of simple instruments and allow children to use them at certain points during the day. In this instance, however, we were quite deliberately setting out to observe the children's use of the instruments, noting any 'progression' so that we might encourage some definite and imaginative use of sounds at a later date. We were uncertain about the kind of instruments we should provide. It would have been fairly easy to put into the school some expensive instruments normally out of the range of an Infants school budget. At the same time we wanted to relate the children's achievements to what was possible in an average school. This school had very little in the way of musical instruments beyond a few of the more common percussion band instruments, four chime bars and some small tubular bells called Mini-chimes. A decision had to be made and in the end it was agreed that we should use the school's own instruments with the addition

of only one or two simple instruments from outside the school. Our Music Corner began with a percussion band drum and tambourine, a pair of Indian bells, the Mini-chimes, and four chime bars. Bit by bit we added other instruments: two glockenspiels (home-made), one rather poor xylophone, and a small harp with wire strings. Later, when it was felt a new timbre was needed, we added a monochord with a violin bow and then a violin.

As a collection of instruments it wasn't very good and looking back on it there is little doubt that from the children's point of view it would have been better to give them better quality instruments. While it is true that any sources of sound could be used for creative experiment in music, good professionally made instruments offer children a much wider range of expressive sounds and opportunities for finer degrees of control. Nevertheless, we took the decision to use basically what was available and wrong as it may now appear it did make possible some useful observations of the children's use of the sounds, and indicated lines of approach to further work.

Every morning the instruments were available for a limited number of children. A notice over the table where the instruments were said "4 can make music" (this was the usual practice in the school: all activities were limited to appropriate numbers). The children chose their activity when they came into the classroom and in general they were expected to keep to what they chose for at least half the 'activities' time. Some things are always more popular than others, of course. Most have phases of popularity - though painting seems never to fall off. Our musical instruments

stood well in popularity - at least to begin with - probably because they were something new. After a week or two most of the children ignored the music table and turned their attention back to the more familiar activities. It seemed that they had exhausted all that the instruments could offer. Possibly interest could have been sustained with better instruments and more variety of timbres but having decided upon our particular approach we looked now for other ways of keeping the children's interest without changing the instruments.

Apparatus and materials for the other activities were kept in cupboards and each morning the children fetched the things from the cupboards and packed them away again at the end of the hour. The music table had been set up as a permanent arrangement - rather like the Book Corner, except that as a matter of principle the books were changed frequently. The music table seemed quickly to become part of the background of the classroom and failed to attract children. So we brought the music making in line with the other activities and kept the instruments in a cupboard. Somehow this worked. It made the choosing of 'music' a much more definite act: you had to get the instruments out and, at the end of the hour, pack them in their boxes and put them away. Mysteriously the popularity of 'music' was restored.

We observed the children's undirected use of the instruments for over a year. From time to time notes were taken and records kept by the class-teacher and others. As often as possible

a tape-recorder was left running with a microphone close to the music table. From these tapes certain features of the children's developing interest in the instruments and their expressive possibilities were observed.

There seemed to be some kind of order in the children's approach to the instruments: most began with the drum and worked through the more limited instruments to those with greater expressive range. At first there was a tendency to make as much noise as possible. In a school more repressive in its discipline than this one the children's reactions to the instruments could have been seen as a breaking away from restrictions. But in this school there were very few restrictions and in any case silence was not expected in class except when the teacher needed to talk to the whole group. During the activities sessions in particular there was always a buzz of conversation and play-noise. The children's reaction to the arrival of musical instruments seems to have been a genuine delight in sound for its own sake. The class-teacher was very patient and without any instruction from her the sounds of the instruments gradually calmed and the children began to take more interest in the possibilities of gentle sounds. After only one week a change was noted from the fierce random banging with which they had all begun to striking notes with what appeared to be some discrimination of volume.

On the whole, finding out about the instruments was a matter of individual exploration. Occasionally chidren would share discoveries with one another and this was par-

ticularly noticeable in their exploration of the small harp. Sometimes the playing of instruments in a group would come together and a spontaneous 'band' effect would happen for a few minutes. But in general the egocentricity of children at this age was as apparent in their reactions to musical instruments as it was in other spheres:

"25 September 1963 - Bruce (age 5.4) played on two chime bars a pattern consisting of four strokes on the c' bar, four on the G, and so on for several minutes. Then random banging on the Mini-chimes for a long time. Bruce was obviously quite content with his music making though his facial expression gave nothing away."

"1 October 1963 - Valerie (age 5.3) played on tubular bells and cime bars. Her playing on the bells was more or less scale-wise throughout. Unlike Bruce last week she showed obvious delight. Keith H. (age 5.6) also played on the bells but his playing was less precise than Valerie's. He did not look at the instrument but hit the notes at random while looking out of the window. Several other children played, most of them in the same random style as Keith H. David (age 5.6) was very taken with the chime bars and made an obviously deliberate piece of music for one chime bar and the two skulls which had been added recently. His 'piece' consisted of a stroke on each instrument in turn, the series continuing in order and in a steady pattern for some minutes. This seemed to give him great pleasure. It would be the first occasion on which we have seen a child play on three instruments consciously in this way."

Some children would concentrate intensely on an instrument while they played, others would play and appear to be satisfied with the sounds they were making even though their attention seemed to be elsewhere. But whether or not they showed signs of being aware of the sounds, remarks they made showed that they liked playing with the instruments. In the course of the first few weeks all the children (thirty-six when the experiment began) had played with the instruments a number of times. Some showed a more obvious interest than others, but this would be expected with any of the activities. We noted the groups formed; we noted individuals who showed any special interest in making music. As time went on a limited kind of social music-making seemed to develop and we would hear children ask each other to join in: "Let's play the music," one would say, or "You're playing in the band, aren't you?"

The instruments were used much more in the morning sessions than in the afternoons. There seemed to be no obvious explanation for this, unless it was that the children were generally rather tired by the end of the school day and playing musical instruments, even in a random fashion, required slightly more physical effort than they could muster at that point. Certainly the afternoon 'activities' period was generally far less 'active' than the morning one.

The boys 'made music' more often than the girls did. In particular one boy, Russell, would choose to play with the instruments on almost every possible occasion. He would be the first to show interest in any new instrument that appeared and he would ask for the instruments on days when they could not be available, perhaps because of some alteration in the

day's programme. It was not a case of a boy agressively preventing others from having the instruments. Rather the opposite: Russell was an introspective child, solemn in manner and serious in approach. Right from the start he had found the instruments very attractive. Whenever he played on them his concentration was deep and it was never an easy matter to get him away from an instrument once he had 'lost' himself in a world of sounds. Allowing children to explore musical instruments freely is bound to throw light on those who, like Russell, have a more than average ability to respond to sounds. We should try to cater for them by giving them opportunities to extend their interest as far as they can.

In the examples which follow, 1-1 to 1-13 are taken from recordings made during the first year of the experiment. They show something of the free exploration of the instruments and of the kind of things the children found out for themselves. The later examples are from recordings made as we began to lead the children into more definite use of the instruments in imaginative work.

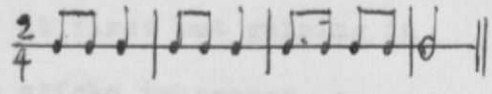
1-1 Recorded in October 1963: examples of random notes played on the small xylophone by Billy P. The individual notes are struck quite fiercely and the random striking is interspersed with a hard 'scrubbing' action. This 'scrubbing' of a xylophone seems to be attractive to many children, possibly because the instrument's construction invites that kind of treatment: it <u>looks</u> as though it should be played like that and the bars are close enough to each other to give the feel of a continuous surface. Drawing the beater backwards and forwards across this surface is a simple action. To begin with this was always a strong action in straight

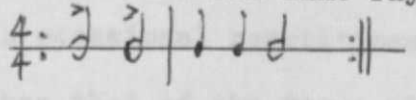
lines from side to side but as the children developed some discrimination in the sounds they made, their movements with the beater became lighter and sometimes made circular patterns across the instrument. Other children - including some in Secondary schools - have been seen making these circular 'scrubbing' patterns on xylophones, and finding obvious delight in doing it.

1-2 October 1963. Indian bells and Minichimes. As with the xylophone, the tubular bells were played at first in a completely random fashion. In this recording bells and xylophone are heard together. There is a fairly steady pulse in the playing and the character of the 'music' is similar from both instruments. No directions were given to the children about how to use the instruments. They tried several ways of getting the Indian bells to sound and decided fairly early on that they looked like tiny 'clash' cymbals (presumably someone had seen cymbals played like that). In this recording a child can be heard trying to 'clash' the Indian bells together.

1-3 Drums seem to be popular with all children. We provided two side-drum sticks but at first only one was used. In this recording we hear drumming with one stick by a boy who has been playing with the instrument on and off for about one month. He has worked through the stage of wanting to make as much noise as possible. The level of the sound is quite acceptable. It is random striking but there is indication of a steady pulse developing. This is followed by some very fierce one-stick drumming by John, a 'new boy'. He joined the class in January 1964 at a time

when the other children had played with the instruments almost daily for several weeks. His reactions were what theirs had been at first - he wanted the drum and he wanted to play it as fiercely and as loudly as he could. This might indicate a necessary preliminary stage through which children will pass when they first have instruments to play with. Only when the noise level settled to a reasonable norm did the children show any obvious signs of listening and of beginning to discriminate in sounds. But it is worth noting that most of the children did not take long to reach this 'volume norm' - a matter of days, in fact.

1-4 Repeated rhythmic patterns did not appear very often inspite of the more or less regular pulse that was frequently apparent in the children's playing. We did note an instance in October 1963 when Russell played on the harp throughout both morning and afternoon 'activities' sessions a recurring pattern of notes in the rhythm: 
This kind of thing seemed to be rare and we have already observed that from the start Russell showed more than usual interest in the musical instruments.

This recording (example 1-4) was made on 23 January 1964. Raymond (aged 5.9), after some trial strokes on the drum, finds he can make a firm march-like rhythmic pattern:

He repeats this over and over again. In fact he kept the pattern going quite steadily for some time inspite of the noise from the other instruments which were being played in the usual random way. From time to time he seemed to

lose his hold on the pattern and a line of crotchets would come out in place of the firm minims. Gradually he would find his way back to the original idea. On the recording we hear him persisting with his pattern even through the entreaties of Georgina (aged 5.8 and something of a forceful character). She can be heard over Raymond's drum sounds, first wheedling, "Can I play the drum?...Oh, can I?" and then threatening, "Won't be your friend!" But Raymond continues, hypnotised by his own drum beat. The group at the music table were interrupted by the teacher. They were allowed to resume after a short while and Raymond still had his rhythm pattern in mind. The recording continues with him taking it up again quite accurately after the break. In the end he does lose the pattern, though the fundamental pulse is firm to the finish.

1-5 Drumming with two sticks was clearly an advance in technique. Here it is tentative at first but gaining in confidence as control of the two sticks increases.

1-6 September 1963. Two chime bars had been put out for the first time. Like all the other instruments at this time they are played quite strongly. The c' and G alternate with very few repeated notes. Next we hear Billy (aged 5.6) playing a 'tune' on the bars. Again, basically an alternating pattern but with occasional repetitions of notes in a manner more definite than that of the first player.

1-7 C and E chime bars have been added and by now the children's interest in gentler sounds is beginning to develop. This recording is of Georgina playing quietly and thoughtfully

on the four bars. The strong pulse has disappeared with the development of a gentler 'touch'. The rhythm is vague and wandering, suggesting the quiet consideration of each note as it is played. There is also a feeling of more conscious selection of notes and phrase lengths.

MS Example 1-7

1-8 Another example of a repeated rhythm 'cell'. Jeanette (aged 5.11) plays on the four chime bars a carefully constructed melodic piece. Once again there seems to be consideration of the melody as it unfolds and, though restrained, there is obviously delight in the repeated phrase.

MS Example 1-8

1-9 Quite early on we had examples of groups of children playing together spontaneously as a 'band'. In her book Discovering Music With Young Children Eunice Bailey tells of similar 'spontaneous bands' and it seems likely that this kind of thing will occur from time to time whenever groups of little children play with musical instruments. The children in this Liverpool school named the collection of instruments "The Band" and, as we have seen, spoke of "playing in the band" and of "making a tune together." Usually, though, each member of the 'Band' would play at his own pace without reference to any other player. They could think of the group as a 'band' but were not conscious of any unity. Occasionally, however, they would come together rhythmically by accident, as if they were caught up in a truly unified piece of music-making inspite of themselves. Sometimes they would be so moved by this feeling of unity that they would get up from the table and, still playing, march round the classroom.

We hear just such a spontaneous union in the children's playing in this example, recorded 8 October 1963. The group are seated around a table. They are playing on the instruments but are completely independent of one another. Someone finishes a fierce and fairly lively phrase of random notes on the xylophone. There is a lull. Then the bells begin again and are soon joined by the xylophone and the drum in what quickly becomes a united fast-march rhythm. This energetic music pulls others in and even the xylophone 'scrubbing' technique is used in conscious union with the others. In fact as the united rhythm of the group begins to disintegrate, it is the vigorously 'scrubbed' xylophone which holds onto the march.

1-10 24 January 1964: developing techniques with the Minichimes. The sound is no longer very loud. The player begins to find other things are possible. Random notes can be heard at first and then the discovery that the glissandi employed on the xylophone can be used even on these upright and free-swinging bells. The player seems to find the glissando effective and repeats it with delight. As control develops there is greater freedom.

1-11 Russell playing the glockenspiel: surely a tune of joy? Again, the sense of freedom and release which accompanies familiarity with the instrument.

1-12 The harp. This was a small metal-framed instrument with wire strings. It was brought in on loan from a local teachers training college and provided, about half-way through

the first term, a new timbre. It was so completely different from the percussion instruments and quickly became the most popular instrument inspite of its lack of volume and its obvious delicacy. The children found it attractive to look at and to handle and they liked the sounds it produced. As we expected, they did break two or three strings and this so upset them that they left all the instruments alone for some days.

The recording contains five examples of the children playing on the harp:

(a) bells and xylophone are very prominent but the harp can be heard faintly in the background. Someone is playing it quite contentedly, stroking the strings with the fingers in a repeated pattern, low strings to high. The player is undisturbed by the noise of the other instruments.

(b) the harp played by stroking the strings in one direction - from low to high - but now the player uses a plectrum (which the children found in the instrument's box) and the glissando is slow enough for individual notes to be noticed.

(c) Interest in individual notes developing. We hear them first plucked in the same spirit as the quiet playing of chime bars in example 1-7. Later someone tries to find out what happens when the strings are plucked hard. Two children can be heard investigating the possibilities of the instrument. Twice one of them urges the other to "Go right up to the top" and offers to demonstrate. "I'll show you..." she says. "So will I," the other replies. The player has by now tried several glissandi of different strengths and

speeds. She goes back to her earlier idea of plucking single notes but after a further request obliges with one more glissando at the upper end of the instrument. She ends on a quiet, but triumphant, top note - and a little giggle of satisfaction.

(d) The children were concerned for the safety of the harp. It looked delicate, as, of course, it was. In this recording several children are listening while one plays by striking upwards across a few strings quite fiercely with the plectrum: someone shouts urgently, "Stop it; you'll break it!"

(e) We frequently heard children talk about "the top" or "the bottom" of the harp's range. These ideas must have come from a source outside the school (or at least beyond this classroom) because, as a matter of policy, they'd not been used by the class teacher. For most of the children the difference in pitch between one 'end' of the harp and the other was established quickly, but when they played on the instrument, either by glissandi or by plucking individual notes, they tended to make 'upward' movements, from low pitches to high. In this recording Sandra is exploring the effects of a sharp <u>downward</u> movement across the strings. Having made the glissando with her right hand she stops the sound by very deliberately putting her left hand on the strings, and so begins to develop for herself a technique with both hands.

1-13 It did seem that the deeper the level of concentration of the child playing, the gentler and more reflective the

music became. It was as though conscious control of the sounds, with individual notes carefully considered, inevitably excluded the exuberance and abandon of random playing. Three examples:

(a) Jeanette playing on chime bars.

(b) Russell playing on the harp. At first it is a gentle exploration of individual notes, then without a break he goes straight into an hypnotic repetition of a two-way glissando over the middle register of the instrument.

(c) Georgina playing on the Mini-chimes (tubular bells).

These, then, are examples of ways in which children aged between five and six explored the instruments we gave them, and built up a catalogue of sounds and techniques. We always referred to what they were doing as "making music", and indeed, rudimentary as it was, there was more about it than simply making noises. Sometimes, with primitive abandon, they would revel in sounds. At other times there was clearly conscious organisation. One way or the other, it was music that these children made.

Having let them play freely with the instruments for several months we began to lead them towards more definite use of the sounds in imaginative work. We gently drew the children's attention to ways in which music can help us tell a story. Story-time is, of course, an important feature of an Infants school day. We included recorded music with some stories, allowing it to 'comment' on the narrative at important points. We told the story of The Sorcerer's Apprentice, with the key sections of Dukas' music to hand on tape so

that the machine could be run for a few seconds at a time at appropriate points. Later we asked the children to choose instruments and make their own music to add to the teacher's story telling. In the next recorded examples we hear parts of the story of Goldilocks with music improvised by a small group of children while the rest of the class listen:

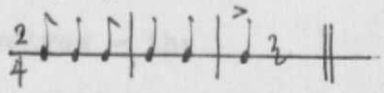
1-14(a)

"[Goldilocks] ran along the little paths...she looked up at the sky through the trees...and she went on and on and on right through the morning until it was about dinner-time..."

Drum, Mini-chimes, Indian bells and glockenspiel. The drum keeps up a steady but gentle quaver pulse with occasional rests in which we can hear clearly the less regular playing of bells and glockenspiel. The players are conscious of the story but not really associated with one another, though towards the end of this section the glockenspiel does have a descending phrase of quavers that seem to be linked to the rhythm of the drum. The continuous accompaniment, held quite gently behind the words of the story, gives a delightful feeling of happy and carefree jogging through the woods with patches of light falling through the trees.

1-14(b)

"Then Goldilocks came along..
..and she knocked at the door.."

Pause on G chime bar.
'Effect' played on the drum: 

1-14(c)

"She leaned back, and when
she leaned back... it went..
...
...crash!"

Billy shouts "Crash!" and the drum is struck once; cymbals and bells follow immediately.

1-14(d)

"She ran upstairs. She was a
little bit frightened. She
ran quickly..."

The urgency in the teacher's voice is taken up at once by the children with instruments. The drum begins with fast running semi-quavers. The other instruments join in ad lib but with a general feeling of haste and urgency.

Although the instrumental sounds in these examples are often nearer to 'sound-effects' than they are to music (e.g. the door-knocking on the drum and the concerted 'crash' of the falling chair) there are nevertheless indications of feeling beyond mere imitative effects. The instruments in example 1-14(a) seem to have been chosen with some feeling

for the lighter colours. The drum is used with suitable restraint. The music does more than illustrate Goldilocks' hurrying through the woods: it partners the story-teller's words and gives a glimpse of the woods themselves - the leaves touched by clear sunlight, and shafts of light striking through the trees. In the recording we hear a second-telling of the story, the mood and the character of the events having been talked over with the children. The choice of the instruments grew out of the discussion, although the 'performance' we recorded was, of course, improvised spontaneously. Similarly with the music which is made to comment on Goldilocks' running upstairs - and this is more than a sound-effect of haste: it contains an element of haste-because-of-fear.

The instruments were chosen in discussion but the music is made with the story intuitively. In this respect the musical sounds are more powerful than words. With stories used in this way we can draw children's attention to the power of music in deepening our understanding of a situation or a character by evoking atmosphere. To some extent this depends on timbre and we tended to stress this by asking the children what 'kind of sound' they thought would be right at any point.

The final example of work with this group of children is recorded on tape and on film. It is the story of Peter and the Wolf. The children heard the story 'straight', that is without the well-known music by Prokofiev. On the day after they had heard the story we asked a group who were playing at the music table if they would make some music

for it. This quickly became a matter of characters - as, of course, it is for Prokofiev. Children chose instruments to fit the characters as they saw them. When we asked them to play their music each player began to see himself in the role of the character, so that when the story was narrated and the children put the music to it, some of them spontaneously added movement and action as they played. We have already noted Hartlaub's suggestion that play becomes art when it is directed to an audience.[3] In the telling of this story with music there were unmistakable signs of music-theatre; of the ritual and 'corporeal' art to which composers like Harry Partch would like to see us return.

Billy P. suggested the glockenspiel for Peter and so became the maker of Peter's music and the character of Peter as well. Did Billy choose the glockenspiel because its bright and 'open' sound seemed to him most suitable for Peter's gaiety as he "played in the meadow"? Alan's imagination was stirred by the idea of the Wolf coming from the depths of a dark forest. He chose the drum and made some very sinister sounds by scraping the sticks round the skin. He lost himself so completely in the part that he hid in a corner with the drum and would not come out until the point in the story where the Wolf is first mentioned. Then he crept stealthily across the room scraping and tapping his drum mysteriously. Diane, playing the Mini-chimes, was the waddling duck, and the Indian bells - played now in the traditional way, the children having found this gave a better sound - made appropriately delicate music for the Bird.

It was not long since we had added the violin to the collection and Russell chose it now for the Cat. David became Grandfather moving slowly to solemn music on Chime bars. With the addition of a few 'extras' as hunters, the group worked out the story in music and some action. The children treated the story in much the same way as Prokofiev does: the instruments represented the characters and the 'motifs' devised by the players as starting points tended to remain fairly constant, changing in manner according to the actions of the characters as the story went on.

When story and music were complete we filmed the children doing it. We made the film partly in order to see how much of the music as the children had made it remained definite for them and to what extent it would be improvised afresh at each 'performance'. As the whole project had become almost improvised drama, making a film seemed to be one way of holding the children's interest through the repetitions of the story necessary to tell us what we wanted to know about the music. The presentation wasn't rehearsed in any way but we did run-through several times and the film was shot twice. In fact the music did become fairly definite in the minds of the players and they were able to repeat specific parts when asked.

1-15 Peter and the Wolf

"Once upon a time there was a little boy called Peter who lived with his Grandfather in a little cottage. Around the cottage was a high stone wall.

Glockenspiel: gay random notes.

Chime bars: slow - Grandfather is a very old man.

"Outside the stone wall was the dark forest. One day Peter came running out of the garden.... 'Hullo, Bird,' he said to his friend. 'Lovely day,' said the Bird. Peter ran around the meadow and the Bird sang her song...

Glockenspiel: as at the start. Billy continues playing under the narration.

"Out of the open gate came the Duck. He was rather a stupid duck. He came out...

Glockenspiel is joined by Indian bells.

...and went splash into the pond!

Mini-chimes: notes taken from alternate ends of the instrument seem to show the Duck's waddling walk. The 'waddling' culminates in a single loud note.

The Duck swam round and round the pond...The Bird singing in the tree... and the Bird said, 'What kind of a bird are you if you can't fly?' And the Duck said, 'What kind of a bird are you if you can't swim?' Suddenly Peter shouted, 'Look out!' ...

Mini-chimes glissandi.

Chimes are joined by Indian bells.

Chimes and bells suggest the two birds' argument.

...because the Cat was creeping through the grass.....

Excited random notes on glockenspiel. Billy, who plays them, is so excited that he sometimes hits the box.

Violin: repeated long 'creeping' notes on A string.

.....

"The Bird flew to the top of the tree! And the Cat sat there saying, 'By the time I climb to the top of the tree the Bird will have gone.'

Bells continue.

Indian bells: fast and excited.

"Just then out of the garden came Grandfather who was very old... 'What are you doing out in the meadow?' said Grandfather, 'the big Wolf might get you.' He took Peter's hand and pulled him into the garden ...and shut the gate and locked it.

Chime bars: David plays slowly C E c' G; C E c' G.

The instruments continue.

Billy changes the character of his glockenspiel music: it becomes definite in the manner of Peter's firm steps as he walks - or does he stamp? - in front of Grandfather. David's slow C and E chime bars can be heard in the background.

"Now we have Peter in the garden; the Duck on the pond; and the Cat at the bottom of the tree.

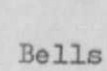
When out of the forest...crept the big grey Wolf!

Glockenspiel as at the start. Mini-chimes single strokes.

Violin A faster; the bells continue.

Alan creeps forward across the classroom carrying the drum which he plays by tapping and by scraping the skin with the sticks.

When the Duck saw the Wolf she <u>jumped</u> out of the pond!
And the Cat ran up the tree...
and the Bird flew right to the top of the tree.

Mini-chimes: single loud note.
Violin: fast  on A string.
Indian Bells excitedly.

"The big grey Wolf chased the Duck round and round...

...

...

...till he caught her and he gobbled her up!

Alan plays 'chase' music- fierce repeated notes - from which the Duck flees in 'terror' music of fast random notes on the Mini-chimes.
Very loud strokes on drum.
There is a dramatic silence in which Billy P. comments, "That's the end of you!"

And that was the end of the Duck. Peter ran into the house and fetched a big rope. He ran out of the house and climbed up the wall.
He climbed the wall and on to a branch of the tree.

Excited glockenspiel music.

A complete change in the music: steady crotchets climb step by step up a major scale.
Single loud note on the glockenspiel announces his safe arrival.

He made a noose in one end of the rope and tied the other end to the branch of the tree. Then carefully he lowered the rope down the tree...

At the mention of the lowering of the rope Billy begins playing a series of fairly fast soft strokes on the top note of the glockenspiel.
Indian bells and glockenspiel are joined by harsh strokes on the drum as the Wolf snaps angrily at the Bird.

'Bird! You flutter round the Wolf's head and make him cross..'

"The Wolf jumped and jumped at the Bird but he couldn't catch her. Then the noose of the rope slipped round the Wolf's head and Peter pulled tight.

Just here there are some tentative glissandi on the xylophone. They were not planned to happen here (it had been agreed that the xylophone was to come in with the hunters at a later point). The sounds seem to be linked with the idea of the noose and the dangling rope. They are probably the result of an involuntary action by the child with the xylophone: she is so caught up in the story that without thinking she plays appropriate music.

Drum very loud.

"Jump! Jump! the Wolf went. The more he jumped, the tighter the rope went. Just then, out of the forest, following the Wolf, came the three huntsmen.

Sound-effects: short sharp strokes on the xylophone and cardboard boxes. This could confirm the observation above about the xylophone player: had she there simply mistaken her cue she would presumably

	have played the planned 'huntsmen' effect which was in quite different character from her 'dangling rope' glissandi.
"They were firing their guns. 'Don't shoot!' cried Peter, 'I've got the Wolf here. We've got him tied up. Help us to take him to the zoo.'	Excited glockenspiel music.
And so Peter led the Wolf followed by the Cat and Grandfather...	All the instruments are played together. The players get so involved in the sounds they have to be quietened by the teacher before she can go on to the end of the story.
And if you listen very quietly, you can hear the Duck inside the Wolf because he swallowed her whole!"	Mini-chimes 'waddle' very quietly.

Having filmed the story, we added four short 'interviews' with some of the players:

1-16 <u>with 'Peter'</u>

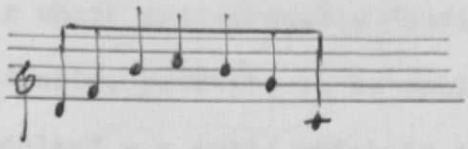
JP "Will you play for me first of all your tune where Peter was skipping about in the meadow?"

Billy (plays) MS Example 1-16(a)

In example 1-16(a) Billy is, of course, playing notes at random. In repeating his 'tune' it is the spirit of the idea rather than actual pitches which he keeps in mind. Even so, this example, played on request, has elements of true melody about it - possibly because this request performance comes now after several 'run-through' performances and the filming itself. If we compare this example with three of Billy's pieces of 'Peter' music made during the story-telling we can see that the earlier 'tunes' have less definition of melodic line but unmistakably similar character and shape:

MS Examples 1-16(b),(c) and (d)

All have the same spirit of gaiety - speeds vary only slightly - characterised by running quaver movement. Billy seems to have in mind not only this characteristic movement but also a shape - probably dictated by the construction of the instrument - which rises and falls: the following phrase occurs in each example with only very slight variants:



1-17

JP "Now play me the piece where Peter climbed up the wall..."

Billy (plays) Ex. 1-17(a): ascending scale of C major, one octave C-c', steady crotchets at MM ♩ = 108

Compare this 'interview' performance with two examples from the story itself:

Ex. 1-17(b): ascending C major scale, one octave as before, steady crotchets at MM ♩ = 100

Ex. 1-17(c): ascending C major scale, one

octave as before, steady crotchets at MM ♩ = 104

1-18 with 'The Cat'

JP "Can we have The Cat running up the tree quickly?" Russell plays fast repeated A's on the violin. As with Billy's 'Peter' music, it is the spirit of the character and of the action which Russell preserves.

1-19 with 'The Wolf'

Alan is asked to repeat his 'Wolf' music. He has to be reminded of "the deep, dark forest" before he can think himself into the part and reproduce the music.

1-20 with 'The Bird' and 'The Duck'

They play again their 'argument' music.

Throughout Peter and the Wolf timbre is of first importance. When they chose instruments to represent the various characters, the children chose first "the kind of sound" they thought most appropriate. With these sounds they invented ways of playing which are virtually 'musical ideas', sufficiently definite, perhaps, to be called 'motifs'. The Duck 'waddles' - a motif which is transformed beautifully at the close when it is played very quietly: the Duck is inside the Wolf and gone forever. Peter's music has the gay, random movement of a small boy at play. The Bird's bell-music 'chirrups' unceasingly, like real bird-song. The Wolf-drum creeps with sinister taps or leaps with loud, fierce strokes. All this music is moving out of the realm of merely imitative

sound-effects (c.f. "Goldilocks", Example 1-14 above) because the players seem to be concerned here not only with the physical actions of the characters but also with what the characters feel as a result of the things that happen to them.

In the free play with musical instruments that formed the first stage of the work with these children we found only the vaguest foreshadowing of interest in rhythmic patterns. While it is true that little children seem to respond easily to rhythmic music and in their playground games we can observe their growing awareness of rhythm in bodily movement, conscious interest in periodic metre and repeated patterns may not appear until much later. In this respect the music made by small children has a lot in common with most primitive types of music which are often rhythmically random. Writing about children's ability to perceive and repeat rhythm patterns M.D. Vernon, in an article in Teaching Arithmetic, says, "The ability of children to employ grouping is also demonstrated in their capacity to grasp rhythmic patterns, for instance, a rhythmic series of taps. Although even little children seem to respond readily to rhythm, they do not necessarily perceive and reproduce it correctly. Thus at the age of 6 years about one third of a group of children who heard a simple rhythm tapped out...could not continue it correctly for 20 seconds. Most of the children could not repeat the same rhythm at a higher speed until about eight years old. They could not accurately match

tapped rhythms against reproductions of these drawn on paper before about 12 years. Thus it is necessary to be cautious in assuming that young children perceive patterns easily...They only obtain a general impression, sufficiently accurate to enable them to identify objects or pictures which are familiar to them."[4]

Certainly among our group of Liverpool infants evidence of rhythmic perception was slow to appear. We have noted one or two examples in the early stages and we may detect some development in the 'wall-climbing' music in Peter and the Wolf: here Billy was able to perceive and keep in mind what he felt to be the most appropriate speed, and this could be bound up with the recognition of rhythmic relationships between the notes, which in this case are not random but are accurately remembered as a 'ladder'. The following conversation with a child recorded immediately after our filming of Peter and the Wolf, would also seem to point to a growing consciousness of the power of repeated pattern:

1-21 JP "Did you like doing that?"

Child "Yes"

JP "Do you think you could think of other stories we could use?"

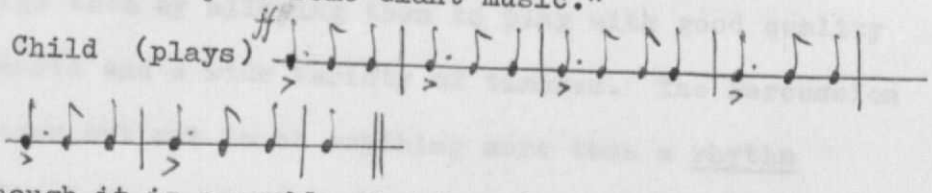
Child "Yes, I've got ever so good one - Jack and the Bean Stalk."

JP "Jack and the Beanstalk? Which instrument would you choose for the Giant?"

Child (indicating the drum) "This one."

JP "Play me some Giant music."

Child (plays)



Although it is arguable that by asking questions like "which instrument would you choose for..." we are bound to throw an emphasis on individual timbres, this technique arose from observation of the children's own approach to the instruments. In much the same way as primitive peoples become one with this or that aspect of Nature by making music with the noise of thunder, wind, water, animals or birds, so these children seemed often to lose themselves in the sounds of an instrument; to identify with it as a whole rather than stand outside it clinically examining possible techniques. They chose first the instrument. If this was their approach it would seem not unreasonable to continue that line of thought when we ask them to start using sounds consciously to express ideas. So the child chooses the drum for the "Giant Music" and the quality of hugeness seems to lie in the 'colour' of those strong dotted crotchets rather than in the rhythmic pattern - apart from the dotted crotchets, the notes seem to be thrown away in every case. The pattern is there but, as we might expect from M.D. Vernon's observations, it is not accurately held throughout. It is the instrument itself which is the Giant.

It is possible to drill small children into reasonably accurate repetitions of rhythm patterns but it might be musically more profitable to begin with the children's

apparent interest in the instruments themselves. We could encourage them by allowing them to play with good quality instruments and a wide variety of timbres. The Percussion Band never set out to be anything more than a rhythm band. Its instruments do not provide a very rich source of sounds. But in Percussion Band playing the accent was less on quality of sound than on numbers of performers. It was a useful way of involving a whole class of children in some kind of active music-making. As there would appear to be some argument for postponement of rhythmic drill until children can grasp rhythm patterns accurately and maintain them steadily, we need in the Infant classroom other forms of music-making, preferably having something in common with other activities being offered. A few good quality instruments available for small groups to play with could be the answer. Using the sounds discovered in that free exploration as the children in our Liverpool school did, could be a more natural progression than the imposition of an analytical approach. In his book Twentieth Century Harmony, Dunwell shows how the Romantic composers of the nineteenth century were led into harmonic development almost exclusively as a vehicle for emotional or extra-musical expression and that this process itself provided many of the raw materials for composers at a later date.[5] In the same way sound-play in the Infant school, later directed towards expressive use, will produce another kind of raw material - the controlled sounds which at a still later stage children may enjoy independently of stories and pictures and other extra-musical associations.

Probably that later stage is not for the Infant school. Pattern, organisation, ensemble and the conscious handling of melody and rhythm will find their place in the Junior school and beyond. With little children we must use what is most immediately meaningful to them. This may well be instrumental timbres associated with characters and action. At that age music is magic, as it is for primitive peoples. Drama and story are the natural outcome of a young child's rich imaginative play. Perhaps we should be content to let musical sounds help them weave the spells.

2 - APPRENTICESHIP

"The Primary School is not for finished work but for experiments. Apprenticeship is a period of experimentation."

- Sybil Marshall (An Experiment in Education)

Around about the time children enter the Junior School some important developments occur in their powers of reasoning. At this point they will probably be roughly half-way between the need to 'think' entirely in actions and the ability to imagine actions - that is, to abstract. They will still rely to a great extent on first-hand physical experience to help them think things out and in some respects physical experiences will come to the fore in a new way as skills assume an importance they have not had previously. In creative music we shall want to make use of these developments while at the same time preserving and building on the world of the imagination which was so prominent during the Infant school years.

Children must still be allowed the freedom to explore sounds but creative activities must be purposeful. Techniques developed in the Infant school can be extended and deepened. A certain amount of refinement will begin to emerge and this should be encouraged. Pride in one's craftsmanship is as important in music as anywhere else. But we must try to keep alive the excitement of discovery. It is so easy for this to be blunted by the need - and the quite proper desire - to acquire skills and techniques on musical instruments. This is not an easy stage in a child's development and creative experiment in music can

sometimes find itself strangely in conflict with those aspects of music in which step-by-step consolidation of skills along a firmly ordained path is the only way to success.

But eleven year old children are interested in skills and in the upper age range of the Junior school we should be able to draw on this interest, encouraging them to work at creative music-making with as much care as they would give to learning to play the recorder or the violin, to building a model or to being good at football. This could be the stage at which to introduce the idea of notation as a way of preserving the music they make. A lot will depend on what kind of music it is. If it is predominantly melodic then the conventional symbols may be sufficient. On the other hand, sound patterns and 'atmospheric' or impressionistic music that relies more on blocks of sound than on melody will probably need a more flexible notation, perhaps using graphic symbols that the composers will have to invent. Some music may call for a blend of the two systems.

It would probably be a mistake to force notation on children: to do so might be to put a stop on imagination to such an extent that they would lose any desire to make their own music at all. But there are advantages in getting children to write their music down. Firstly, it 'fixes' the content. When children improvise drama and repeat completed pieces of work, the repetitions tend to get shorter. In the end they become mere symbols of

the original. It is as though the children, knowing the content so well, expect those who see the piece played out to know it equally well. Symbols are, therefore, enough. The same kind of thing happens with improvised music where the improvisations are 'worked over' to become 'compositions'. Some kind of notation, however rudimentary, will make children think in terms of a definitive version of their music. Secondly, the need to crystalise ideas in notation will focus attention on what happens in the music. It will make the composers conscious of the form - in the sense of 'where the piece goes' - sending them back to the sounds they make to define and clarify exactly what they do at each stage of the music. Finally, the effort of notating the music may bring to their attention the notation of other music and generally awaken children's interest in music-reading. Inventing their own notation where necessary and perhaps combining these symbols with some of the conventional ones, could help children to keep an open mind about the whole business of recording music on paper, and to see it as an ever-developing system extended by successive generations of musicians.

In the Junior school we shall try to draw out the imaginative and technical strengths of all the children. They can continue to explore sounds from musical instruments and from other sources. They can make simple musical instruments for themselves, discover the techniques of these instruments and make music. They can listen to music

by professional composers both for the enjoyment it brings and also for encouragement where there are relationships between the music heard and their own creative efforts. There will be a lot of work in music that can be undertaken with children by non-specialist teachers. Any Junior school teacher with a general interest in creative work will be able to make some kind of contribution that will be valuable. If there is a music specialist on the staff he could have an overall view of the music work but if creative music can grow as naturally as possible from the other work of each class under the guidance of its class-teacher, so much the better. In some of the examples that follow we shall see quite substantial results coming from classes working with teachers who are not musically trained. Reasons for making music arise naturally from other activities. Each school has its own background and special interests and these varying characteristics contribute to the variety of the music the children make.

GROUP 2 - the 'top' class of a small rural Primary school in the West Riding of Yorkshire. Although a main road runs through the middle of the village there is a feeling of remoteness. There are other villages in the dale but the nearest town is several miles away. Children come to this school from distances of up to three miles. Their background is predominantly farming and, like most children in remote country areas, they appear at first to be reserved and with-

out the rather obvious self-confidence that town children often seem to have. However, the children's lively perception of things around them is soon apparent and when they talk with their teacher they all show considerable abilities of communication. There is no doubt that this is entirely due to the remarkable skills of this particular teacher. She has opened the children's eyes and ears to the natural environment of the school and has helped them, through a variety of techniques, to look searchingly at familiar things and to express clearly what they see and what they feel.

The school itself is unusual: endowed during the eighteenth century and its upkeep entrusted to a board of trustees (whose beautifully panelled board-room with its portraits and Chippendale furniture is still used), it is now aided and managed by the Local Education Authority and in all outward respects is like almost any other village school. At the time when the work described below was being done there were thirty-four children on role, divided into two classes. The 'top' class had an age-range of 7-11+ and a total of sixteen children. Their teacher is also the Headmistress and lives in the house attached to the school. Like the children she teaches she is now very much part of the village and close to the environment which is her inspiration. Her special interest is nature study, a seemingly 'old-fashioned' subject but one that in this case has been a springboard for a vast amount of exciting work by the children in language, visual arts and, laterly, in music.

When she came to this school, the Headmistress found the children uncommunicative and apparently unperceptive of their own surroundings. She set out to put this right by increasing their vocabulary through talking with them. She aimed to make them articulate by opening their eyes to commonplace things immediately to hand. Within a comparatively short time children were talking fluently about things they had seen, discussing with interest plants and objects brought into the classroom, and writing with freedom both descriptively and imaginatively. Drawing a plant or a flower is important: once a child starts to put things on paper carefully he begins to notice details he might otherwise have missed. Working carefully in this way with one small plant increases perception of other things so that after a while details are seen immediately. Imagination also needs not only exercise but consolodation if it is to grow. Recording imaginative ideas in writing encourages the imagination's response to all kinds of different things around about.* At this school children are allowed all the freedom they want for their creative work but they are also expected to see that the final version is prepared carefully. Indeed one of the most striking things about the work in this tiny

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*One delightful example of this 'immediate' seeing occurs in a piece written by a child at this school: "A snowy March morning. We went to look at the trees. Their long lacey branches hung down to try and throw the snow off... We looked round and there was a line of swords hanging up waiting to be used by a brave knight. David pulled the biggest sword and all the row fell down."

rural school is the excellent balance the care and accuracy - the craftsmanship - which is expected, and the 'free' exploratory methods that are so much a part of modern educational practice.

Having heard about the excellent work these children were doing in creative writing, I approached the Headmistress and asked if she would co-operate in a small experimental project in which we would encourage a musical extension of the creative writing based on her use of the environment. She hesitated at first, uncertain because of her own complete lack of musical training. But this could be an advantage. There would not be too many preconceptions about what children might or might not do in music and as a teacher she was clearly convinced of the value of creative activities in helping children to become articulate and aware. After a very little consideration she said she would be willing to attempt this new work with the children as a joint venture with no more technique than she or they had, discovering as they went along. There would be no imposition of ideas or 'methods'. The children would be encouraged to see music as another aspect of language which could help to deepen or extend ideas they were already expressing in words or paint.

We began immediately, and we began with the Headmistress's own special enthusiasm: nature study. It was mid-October and in the classroom were some twigs and leaves brought into school some time previously and now dried and fading.

We gathered the children around and chose a piece of hogweed. It was brown and lifeless. Even so, as each child in turn took the hogweed they found things to say about it. After some general discussion they all wrote about it, putting down not only the factual descriptions of the piece of weed but also the trains of imagination which started when they held it in their hands. Some had seen a monster there, its dried tentacles reaching out with menace. Others saw the spikyness of the plant and wrote about that as a feature in itself.

When some of the pieces had been read out, we chose the Monster idea for further exploration, first in movement and then in music. It took shape quickly: Katherine chose low-pitched note-clusters on the piano to suggest menace. Paul, with a drum, concentrated on the physical aspects, producing a scrape and a thud to suggest the Monster's way of walking as it moved towards its prey.* This brought a reaction and music for glockenspiel was made to portray the Monster satisfied and resting. From here we did some more movement and it was interesting to see how quickly the music already made fed new ideas into the movement. Some children were quick to notice the details of Paul's drum music and working from there they pointed out that "the monster drags one leg" (the drag and thud of the drum music).

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*c.f. Alan's 'Wolf' music described on page 50.

From these brief experiments a story grew and this was acted out with the music supporting it. Katherine's piano music was powerful with menace and its feeling was caught by the others and showed on their faces as they acted. None of this took very long: it was tentative but we had made a start. After break on the same day, we began again, this time taking a twig of horsechestnut as a starting point. As before, the children talked about it in turn, some describing quite simply what they saw, others letting their imagination carry them far from the twig they were holding. Ideas became more and more fanciful: "The ring marks look like the sea..." Then the children wrote about it.

"Horsechestnut"

"The sticky buds make me think that glue was made out of them a long time ago. Scars on its rough body are like wounds which it picked up from many fights with strange Martian creatures. It is also like a palm tree and the sticky buds are dates, and no one can have them because they are too sticky. They also look like shields which Vikings once used, and they are in a museum, but the dust only sticks to them. They would do very nicely say young housemaids, but you have to be strong to pull them from the furniture as they stick so much. I also see a snake's head appearing from a hollow tree. Or the tail of a peacock from the leaf."

At first sight a piece like this appears to be no more than a series of disjointed images, but then we see that themes do run through the writing and often one image leads to another. It is rather like the reduction and 'symbolization' of improvised drama mentioned above: trains of thought are clearly understood by the writer who consequently does not see the need to explain ideas in full - hence the curious passage about the housemaids. In full it would be: the shield shape...Viking shields...museum...dust...sticky (buds) shields...dust sticks to shields...they could be used as dusters...they would "do very nicely" but they are shields and they are heavy as well as sticky, so it's not such a good idea! All this is understood and we shall see that children frequently 'concertina' ideas, concentrating their expression in language, movement, and music once the ideas are strongly in their minds. Here the idea of 'stickiness' is firmly rooted and this conditions the directions taken by the train of thought.

Since the writing was preceded by a general discussion it is not surprising that some ideas appear in the work of several children - although these ideas are generally followed through in quite individual ways. Seeing the twig of horsechestnut as a tree was one such idea. Several children had begun by drawing the twig and their drawings became spurs to imagination. Sidney saw in his finished drawing a small tree alone on a hillside with all its leaves

and branches blown in the same direction:

"Horsechestnut"

"The small tree is standing up but the North wind whirls round it. The leaves are facing one way that's why it makes me think of the north wind. One of the leaves makes me think of a clam and it is waiting for a small helpless fish. The small piece that I have is like a radar. It looks like a tent and the winds have tattered and torn. It reminds me of an electric fan. The leaves are the ribbons and they are flying about. A leaf reminds me of a cup but the cup has been cracked and it lets water out."

Inspite of a number of divergent images, we can see a line of thought leading from the opening sentence of Sidney's piece: North wind...leaves blown and whirling round...radar antenna turning round (like a tree blown by the wind?)...tent blown to tatters by the wind... electric fan with ribbons (wind and turning radar bowl?) ...ribbons flying from the fan are like branches of a tree swirling in the wind.

We discussed Sidney's opening sentence with the whole group. The school stands high on the side of the valley: from the windows we could see a number of trees, their branches grown over to one side because of the prevailing wind. The children took up the idea of the small tree's loneliness which seemed to be the dominant idea in Sidney's

first sentence. The discussion focussed on this and on the north wind and a story began to form: a small tree stands alone on a sunlit hillside - the wind begins to blow and the branches of the tree are stretched out in one direction - gradually the storm dies, the wind drops and the little tree stands still again, alone in the sunlight.

Following the earlier work based on the piece of hog-weed, the idea of creating music to heighten the story grew rapidly, almost alongside the story itself. The theme of 'loneliness' was talked around for some time until Katherine, encouraged by her earlier success with menace-music, suggested a solemn repetition of a note-cluster, this time in the middle register of the piano. She tried higher sounds and lower sounds but finally decided the middle register had the right kind of 'anonymity': it was as though the extremes of the piano were too emotive. Loneliness is a 'nothing' state. The monotony of this repeated chord was to evoke the solitary state of the tree and all the feelings of hopelessness in being lost ("That tree is crying..."). The range of other instruments was not wide. A few children played recorders. There was a small glockenspiel and a few percussion band instruments. In making this music the children's choice of sounds was to a certain extent governed by the possibilities for 'sound-effects':they experimented with the recorders and found they could make a quite acceptable wind noise by blowing the instrument with one hand over the 'window'.

But there were also attempts at music which, although frankly impressionistic, did seem to show some consideration of how the tree might feel in its lonely position. A quiet series of notes step-wise on the glockenspiel evoked the atmosphere of a carefree day in the clear sunlight. We combined this with Katherine's 'loneliness' chord and to intensify the feeling of solitariness Pamela suggested the addition of a single high note on the xylophone to be repeated throughout the piece. The story prescribed the form: calm and sunlit - storm with high wind - calm and sunlit again. For the middle section the glockenspiel dropped out, its place being taken by 'the wind' (recorders and tambourine); the other instruments continued as before.

All this was worked out in group improvisation, the ideas - related to the events of the story - laid on top of one another like layers of a cake. But when the principal contents had been assembled it was clear we should have to think of a way to end the piece - and by now it had indeed become a piece of music, independent of the story. The children's solution was a simple one: we would have a single stroke on the triangle as a signal to stop. But so strong was the relationship of the music to the story that this purely musical suggestion suddenly appeared out of place. It would have to be fitted back into the narrative. And so it was decided that the single triangle note should appear when all was clear and calm again - a bird alighting gently on a branch of the tree.

2-1 The first version of The Lonely Tree, 26 October 1966. The improvisations were repeated several times, each run-through confirming more detail and consolidating the overall shape of the piece. After a while it was clear that we had a definitive version of the music and this recording was made.

MS Example 2-1

This became the basis of some work in movement. Sidney tells us about it:

"Making Music"

"At first we talked about a horsechestnut twig, then we wrote about it, we were going to act to a bit of my sentence. It was called The Lonely Tree. We made some music. There were nine instruments playing. Four of them were recorders, the wind was a whistling sound and the tree was a sad sound. But the sun was gay and happy. The music was put on a tape-recorder and we acted to the music. At first we were all trees. We were tossed and turned by the wind until at last we were all facing the south. For the last bit of the acting we had Christopher for the tree and we were the wind. Christopher was waving about in the sun, then the wind came and we tossed Christopher about like a ball. Then the wind died down and we went to the ground. The tree was facing the south and then a little bird chipped and it was all over."

The value of keeping accurate records had been impressed on these children in all their other school work. If their music were to have links with these other activities it would be as well to treat it in the same way. The children agreed that it would be useful if the music could be written down and we talked about ways in which this might be done. They turned again to the music of The Lonely Tree, this time in an analytical frame of mind. Katherine's chord was an obvious focal point. They could count the repetitions, they said, and see what else was happening at the same time. They played the music once more, concentrating hard on everything that happened in the piece. There were seven repetitions of the chord during the first section and nine during the 'storm' section. As it had by now been decided that the final section was a 'straight' repeat of the first, it was agreed without further hearing that there must be seven repetitions of the chord for the third section of the music. 7:9:7 - ABA. The thing became apparent suddenly and without comment. Pamela asked for coloured chalks and tried to show this pattern on the blackboard diagramatically. It was an important moment. Not only did it crystalize for the children the possibility of some kind of notation, but it also gave them a glimpse of form; of the artistic 'power' of construction. Music could 'go somewhere' or 'have a shape'. The idea that one could have this kind of overall grasp of what happens in a piece of music made a great impression on these children. No-one taught them this: it was a moment of revelation,

of insight brought about by a searching look at the music they had made. Later they found by listening that other music - for example, hymn tunes - had this same shape, a construction they came to think of as their pattern. Already a title - The Lonely Tree - had grown naturally and had been accepted. We agreed now that they would find a way of notating the piece.

A week later I saw some of the many attempts they had made to evolve a notation. All were based on the 7:9:7 discovery and made use of pictograms and verbal descriptions of how the music should go. Only the four recorder players knew anything of conventional notation. Where pitches were designated it was generally by letters, for example: "Piano CDE all the time these three notes. Xylophone CDEFGABC DEFG all the time". The child who wrote that was confusing xylophone and glockenspiel. What is noted seems to refer not to the completed piece but to an earlier stage. The pitches mentioned are those of the first improvisation - although even then they were not played "all the time." In the final notated version the glockenspiel part was radically different. Inevitably the process of notating the music became also a process of revision. Some things were changed, others were made more definite. Some of the spontaneity was lost but the finally agreed notation was not too rigid and the charm of its presentation was adequate compensation.

Pamela (aged 11) had been mainly responsible for the final version, though it incorporated many ideas supplied by the rest of the class. It was immediately impressive. Big staves

had been drawn on a large sheet of cartridge paper. Note-heads had been cut out in coloured papers and stuck on to the staves. In fact colour played an important part. Each instrument was designated by colour and a key at the bottom of the sheet showed which was which. All the music for an instrument appeared in the instrument's colour, either as conventional notes on the stave or as pictographs. The completed score was a 'work' in itself, decorated with immense care and delightful to see. At first glance it seemed that the music had been notated in traditional symbols but then it was soon apparent that the children were <u>using</u> the symbols - making them mean what they wanted them to mean. Their sources of information were the recorder players and a hymn book. The class teacher was not able to help them as she knew nothing at all about the notation of music. Of course, she gave them a great deal of encouragement and work on notating this piece had become yet another group activity, going on alongside mathematics or writing.

In their attempts to find a way of writing their music on paper it was clear that the majority of the children had been strongly influenced by the musical knowledge of the recorder players. A workable system could have been found that did not use conventional symbols but such is the mystique of music that when the recorder players showed that they knew music was written on a stave and demonstrated this by referring to the music in the hymn book, the others accepted this as the only possible way. In fact the recorder players' knowledge was not very large. They did know which

lines and spaces to use within a range from middle C to g' but they were very uncertain about bar-lines and about rhythmic notation. In the final version of The Lonely Tree none of the note-heads has a tail and the bar-lines are used, as they were in lute music during the sixteenth century, as guides to the eye, cutting the music into convenient sections rather than indicating rhythmic measure.

Where knowledge ran out the children invented. Instruments, effects and methods of performance are indicated by pictograph. One of the most delightful aspects of all this, is to see the ways in which the children made the concept of notation their own. While the authority of the recorder players was never questioned and their suggestion for the use of the five-line stave accepted without hesitation, the other children were nevertheless independently inventive and their ideas were incorporated so that the finished piece was indeed a corporate effort.

The definitive score does differ from the 'agreed version' of the improvisations in certain details. It is interesting to see which were the features that most impressed themselves on the children when they came to look at their improvisation analytically. These features became major factors in the music's organisation. They are:

(a) the 'loneliness' chord on the piano. This remains exactly as at first and is clearly a keystone in the construction.

(b) the repeated xylophone note (changed from f to g')

and its relationship with the piano chord. The alternating pattern, present in the original though undefined, now becomes a significant feature in the organisation.

(c) the glockenspiel 'melody'. As in the improvisation, the glockenspiel gives place to the recorders for the middle section but now the glockenspiel melody is rather different and quite a bit shorter. The original melody rose to a high g and then began its scalic ascent again from the lowest C. The notated version gives this melody as a stepwise ascent followed by a stepwise descent.

(d) the 'wind' (recorders) is given shape and made more 'musical' in this final version by the addition of defined pitches played by one instrument against the shrill wind sound-effect played by the others. The children's score shows these pitches (b - g - d) as nine separate notes but, as we can hear in the recording, they intend that these shall be played as three sustained notes of three beats each. The vague 'flapping' of the tambourines now becomes a very definite side to side movement which is indicated precisely in the score.

(e) the triangle - as in the original improvisation but also a clear signal to stop. The recordings discussed below show how effective this is: the other players have no hesitation: when the triangle sounds they stop!

The children's attempt at notation is really very satisfactory, as a comparison of their version with the conventionally notated transcripts will show. The devices

may be inexact but they serve quite adequately to remind the players of the music.

2-2 Recorded 7 November 1966.

MS Example 2-2

Piano and xylophone keep up their alternating pattern throughout. The children are reading the music but Katherine (piano) is unable to judge accurately the relationship between her chords and the music for the glockenspiel. The children's score - based on their analysis of the improvisation - shows the glockenspiel beginning. In this recording the player is late, starting his part only after he has heard the first piano chord. This may be why he plays slightly faster. Whatever the reason, he arrives at the end of his phrase before the piano and xylophone have completed their first section. Even so, the performance is satisfactory. The score is obviously being used and the general effect is as notated by the children.

2-3 MS Example 2-3

This time they begin exactly as their score shows they should: glockenspiel A, piano chord, and xylophone g'. Thereafter, however, the performance is a less accurate interpretation of the score. Overall it is shorter: the pianist has time for only five repetitions of her chord in section 1 and seven repetitions in section 2. It is not uncommon to find repeat performances of children's improvised music becoming shorter as the players grow used to the completed piece. They seem to accept the

shortened versions as tokens for their first thoughts - which are often quite complicated and have to be externalised in action to 'become' at all. Once these thoughts have been expressed in action it is accepted that we know the details and repetitions can take the form of symbols for the complete (understood) work. It is possible that The Lonely Tree would have become even shorter had it not been arrested in notation, even though successive performances varied in accuracy. Rhythmically this piece is very flexible inspite of the piano chord's steady repetitions. The children's indefinite notation seems appropriate to such flexibility.

Making The Lonely Tree had taught the group that sounds and silences could be organised, as they were used to organising words, movement, colours and shapes, to say something. The result had all the qualities of music - indeed, if this wasn't music it was difficult to see what else it could be. Already they were looking for a subject for another piece of music. They found it by going outside one windy day:

"In the Wind"

"Wind constantly rushed into me. Birds manouvered gliding, then darting. Gulls flew on like aeroplanes then banking and finishing by steadily rocking. The ferns blowing, seemed as if they were stuck in ice and the wind was in vain trying to pull them out. The spring rippled in the wind, undulating weeds

rose with the water. The bottom which was covered in mud glistened in the small light of the sun. Grass waved as if it was on a bleak hillside. Wind whistling through the trees was like the sea, and the tree was some rocks in the midst of it. Another kit-like bird flew on - it was a rook. First it seemed to glide, then it began to manouvre. A small finch, rapidly beating its wings, then gliding a small way, then flapping again seemed to hop along. The bare trees seemed like lace as all the leaves had fallen off."

Once again we can see how trains of thought are set off by observation of details. In a similar way, lines of sensitivity grow in response to atmosphere - in this case the atmosphere of a fresh, windy day.

"In the Wind"

"We have been outside to see what the birds were doing in the wind. They seemed to be dancing on the wind. They flew in a pattern, they glided for a while and then they flapped to keep themselves up in the air. The gulls were wheeling in the sky. They went a little way gliding then they rocked. To turn a corner they banked like an aeroplane. They seemed to be losing control of themselves. The little finches were being driven back. They flapped their wings rapidly. The wind made the finch jerk and it seemed as if it was teasing the finch by making it hop. They looked like swimmers bobbing up and down."

Helping children to see familiar things with innocent eyes, as the teacher was doing here, requires a lot of skill. If there is too much direction to look at things the excitement of personal discovery is lost. Yet there must be guidance. On this occasion the children were allowed to enjoy the windy day, to feel themselves carried along by the boisterousness of the fresh breeze, almost as though they were themselves flying. Gradually their attention was drawn towards the birds and the different ways in which the birds moved. Back in the classroom the conversation between teacher and class continued, but now focussed sharply on the birds they had seen outside.

"Birds Flying"

"When we went out to look at the silhouette of the birds, the first figure we saw was a black silhouette. It was a rook. Gracefully it started to turn round. It flapped its wings. Then it began to hover over the tall trees. We went further down the lane and we saw a seagull. It started to bank, then it would wobble. It would glide away in fun not thinking of what might happen. As we came back we saw a tiny little bird, it was a finch. Its wings were flapping tremendously. It was giving a hop, then flying, then another hop. The finch soon went, it was not a bit like the rook and the seagull."

By the time I visited the school again the children were well ahead with some music based on these ideas. They had been improvising with instruments on the movements of

the seagulls and the rooks. We talked about the way the finches moved and worked this out in movement ourselves. Possibilities for music were discussed. Pamela described the fast swooping motions and tried to capture this idea in music for the recorder. Sidney thought a double-bass would be better "if we had one!" (he seemed to have some idea of the possibilities of a string glissando). Paul took this a stage further and tried to describe the music he would make if we had a harp. We took the front off the piano and examined the strings which, of course, looked like a harp and would give the kind of effect Paul had in mind if we stroked them while holding the sustaining pedal down. Sidney made the music for the finches. Something more seemed to be needed and someone suggested the drum for the finches short, jerky movements. There was a lot of discussion about how best to achieve this effect. Sidney wanted light tapping with the fingers rather than sticks but although he tried he could not control the sound to his satisfaction. Guy, however, did succeed. In this way, trying out each others ideas, the music was built up.

"Making music about Birds"

"As soon as we came back we talked about the manouvering birds. Then we acted the birds. At first we acted the rooks. Some thought that they wobbled some didn't. Some thought that they went high, some thought that they went low. The seagull I liked best. The seagull had more movement than the rooks. We banked and wobbled, we turned round we went low and high. It was nice to be the seagull for once. The finch was nice, it hopped,

it swooped, it dived. But we did not see it much. We turned round and we went down and we went up. The acting was over. We talked about making some music. Someone suggested that we would have the tambourines to be the beating of the rook's wings. We agreed. We thought what we would have for gliding. Someone tried top c and g [on the recorders]. It goes c then the tambourines, then g and so on. The leaves were falling all the time. The leaves were the xylophone*. We had to think of something for the banking of the seagull. Pamela thought four notes on the piano, I thought it was an excellent idea. As well we had recorders and a drum for the wind. I played a part in the finch music. I played the swooping of the finch. Guy played the flapping of the finch by tapping the drum. I had the piano. Then we replayed the first line."

On 16 November the score of Birds Flying was complete. The first section illustrates the movements of the rooks who alternately flap their wings (tambourines) and soar (recorders d'-G-d' sustained - although the children's notation seems to indicate four separate notes in each case. They obviously felt the pulse, which is strong in this piece, and realised that each note lasted for four beats). While the rooks flap and "manouvre", the leaves are falling "all the time" to a pentatonic ostinato+ played throughout

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* This should be glockenspiel. Sidney, who wrote this, had difficulty in remembering which was which.

+ These children knew nothing of pentatonic scales. They selected the notes of this ostinato without any prompting from the complete range of a fully chromatic glockenspiel.

this section on the glockenspiel.

The middle section is itself divided into two parts. The first is about the banking and gliding of the gulls. Here is some beautiful music for piano and recorders: gentle consecutive seconds rock back and forth with the gulls' movements, then float on smooth octave Cs played by recorders against a background of a quietly rolled drum rising and falling with the continuous hum of the wind. This leads into the second part where we meet the finches with their curious hop (drum) and swoop (piano strings stroked). Here the composers also draw on material from the first section of the piece by re-introducing the glockenspiel ostinato, a useful link which takes us easily back to a straight repeat of the opening section, the rooks. The conclusion is announced firmly by a single loud stroke on the drum ("LAST TIME!"). Having organised a signal to end The Lonely Tree it would seem the children felt obliged to have one for Birds Flying but it becomes more than simply a sign to stop playing: it has the finality of a full-orchestra chord at the end of a Beethoven symphony.

Once again, the notation is an important piece of work in itself. Already it shows a development from the notation of The Lonely Tree made only a short time previously. Colour is being used even more extensively and there are developments in the graphics. Pictographs for the drum, piano strings, and tambourine music fit well into the overall scheme of the score. Although they did not discover a way

of showing the difference between the separate notes of the glockenspiel music and the sustained notes of the recorders, the score does show that the children were conscious of the exact length of the recorder notes. In fact the pulse of this music is very clearly felt and the bar-lines divide the score into regular measures - four-beat measures in the main, with a change to three-time for the first part of the middle section. This would have been discovered after the music had been made. The piece was completed first in improvisation, hence the ease with which a change of 'time' occurs, first to three-time and then back to four.

Comparing this score with the performance recorded on 16 November 1966 and its transcript into conventional notation, we shall see that the children's deviations from their own notation are very few:

2-4 MS Example 2-4

Sections A and B are played exactly as the children notated them. At the da capo the glockenspiel gets 'out' with the other parts and although the tambourines and recorders succeed in establishing their alternating pattern accurately, the ostinato is 'out' to the end. Nevertheless, the overall effect is accurate and the character of the piece is in no way altered.

Although this is unashamedly descriptive music, one can feel that the sounds are taking over. The form is so well handled and this contributes enormously to the success of

the piece as music. Even so, the composers have had to rely on their own musical intuition: apart from some very minor help with notational points such as the 'repeat' dots (which even then were not used correctly) there was no direct musical teaching. The class-teacher concentrated on the subject of the piece, helping the children to define clearly what it was they wanted their music to say.

Ideas for music were now coming quickly upon one another. Before one piece was completed the children were thinking of another. On the day in which we recorded Birds Flying they discussed a piece to be called The Water Trough which appeared in a definitive version some days later as Water Trough Music.

Birds Flying is about the movements of the different birds: its musical character and continuity grow from this 'programme' with quite a lot of rhythmic awareness as a result. In Water Trough Music there is a return to the kind of thing that was being attempted in The Lonely Tree. The new piece describes something seen but it tries also to evoke an atmosphere felt.

"A Water Trough"

"Wind thundered in our ears as we walked down the lane. As the trough came into sight it seemed desolate. Undulating weeds swayed to and fro in the calm and still water. Under the wall ripples seemd to lash out as if protecting the stillness. Ferns bent round it, looking as if they were trying to make it look more beautiful. At one corner a waterfall gushed out."

"Water Trough Music"

"One day as we were going down Donkey Lane we saw a water trough. We talked about it and when we arrived back at school we decided to make some music about it. First we thought about the wind making waves on the surface of the water. It was difficult to find which instruments would sound like the waves. We thought that the cymbals would be alright for the crashing of the waves then we thought that it was too crashy. Then we thought that the sandpaper blocks together with the cymbals might be alright, so we tried it and it was alright. Someone said the wind sounded like thunder so we had a drum with the soft hammer. Then we thought about a part where the water was still and soft. We said it was smooth and low music. For that we used three low notes on the recorders. There was a little bit of grass in the trough which was waving about. To represent this we used a wooden stick which we scraped on a drum. We also used a xylophone* for the clear water. We played those two bits twice. Then there came the ripples. We suggested that it should be high notes on whatever we played. First we tried the xylophone* but it was too soft so we tried the piano and we thought that it was just right. Also we had a triangle for the ripples. Then we played the soft bit again. Both of them we repeated. We finished up with the wavy bit again."

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*This should be glockenspiel: there was still confusion about its name.

2-5 The recording made 5 December 1966. The feeling of stillness in the midst of turbulence is conveyed effectively by the instrumentation and by the shifting pulses of five and three, though the pulse is not felt with any strength. When they were composing this piece the group evidently did not feel the need for exact coincidence of the parts nor even accuracy in defining the pitches of notes. Their aim seems to have been simply to create an effect within a very general framework suggested by the 'programme'. Frequently the music borders on sound effects of an imitative kind, and we can see from the writing quoted above that this was what was intended. The children tried for some time to find the sounds which "would sound like the waves". They had only the small percussion-band cymbals and seemed very disatisfied with the sound they made. I offered them a large suspended cymbal but it was refused because they wanted to find the answer with their own resources. Sidney produced the sandpaper blocks and after a while they discovered that if these were rubbed while the cymbal player slid the cymbals together and stroked one off the other, this would produce the sound they wanted. Other instruments were then added. Here all their efforts were directed towards imitating a natural sound rather than making music, but the piece as a whole demonstrates well the borderline between sound-effects and music. The drum may be used to imitate thunder but the glockenspiel is chosen for its timbre "for the clear water" and what is played on it is without doubt music.

It is especially effective when it is combined with the "smooth and low music" of the solemn little recorder tune. This combination is in fact an example of 'folk heterophony': the primitive three-note tune was made on the recorder and repeated to the glockenspiel player who tried to copy it. He thought he was playing the same series of notes but when they came to notate the finished piece they found the deviations that are now, of course, shown in the score. By this time they had presumably forgotten that the glockenspiel had set out to imitate the recorder melody. As far as the composers were concerned, recorder and glockenspiel sounded right together; the overall effect was what they wanted. The heterophony of folk-singers and jazz musicians comes about in just this way.

There are several versions of this piece and it is interesting to compare the children's more exact notation of Birds Flying with their notation of Water Trough Music. In Water Trough Music the bar lines are once again (as in The Lonely Tree) marks of sections rather than measures in the modern sense. The graphics indicate little more than that certain things happen a prescribed number of times, and although a treble clef does give us a precise pitch for the recorders and glockenspiel, the clef is missing from the stave on which the piano's notes are written. This section was subject to quite a lot of variation in the different recordings.

On the other hand the form of the piece is not vague. It is carefully thought out in relation to those things

which had impressed the children most when they looked at the water trough. Back in the classroom after their walk they had talked a lot about the stillness at the centre of the trough, comparing this with the ripples at the sides which "seemed to lash out as if protecting the stillness." The wind had made little waves at one end while the waterfall gushed out at the other end, but in the middle it had been "calm and still". So the calm and still music would be placed at the centre of the piece. The child's description, quoted above, of how they came to make Water Trough Music shows clearly that the group had already adopted a pattern of working. All details observed were translated into musical 'bricks' which could then be built up into the finished piece, sometimes by placing the bricks in an agreed order one after the other, sometimes by piling them up on top of one another. This method had grown out of the first improvisations for The Lonely Tree. It quickly became established and, as we shall see in later examples, although it was developed in various ways its basic principles remained the same for all the music made by the group. Water Trough Music is pictorial but because the composers built up the piece with their pre-cast bricks of musical material, the finished piece is musically satisfying beyond its descriptive qualities. The children were learning by experience to work their material. Formally the music is palindromic: the waves - the stillness - the ripples - the stillness - the waves, though with internal repeats this becomes ABAB-CBC-BA.

Melody too is becoming a natural medium for these children, its development showing affinities with melodic structures in primitive musics. In Birds Flying there was the glockenspiel ostinato in a pentatonic series. Here we have a tiny three-note fragment which develops into a heterophony of recorders and glockenspiel.

MS Example 2-5(a)

The version given here in conventional notation is an amalgam of what would appear to be 'basic' versions. The variations are evident in the different recordings but they do not affect the overall atmosphere or structure of the music. Perhaps the most radical deviation occurs in the piano part which the children notated thus:

MS Example 2-5(b)

In the basic recorded versions this appears as:

MS Example 2-5(c)

or as:

MS Example 2-5(d)

In this last case the series is given quite a strong feeling of duple time which affects the recorder and glockenspiel melody, throwing out the sense of 5-time and replacing that too with a duple pulse:

MS Example 2-5(e)

Inspite of its apparent lack of definition, Water Trough Music does represent a movement forward for its composers. The freedom of the heterophony is essential to the realisation of the subject: the children had seen the water flowing over

the edge of the trough and this movement could not be expressed in a pattern of rhythms that were too tightly-knit. They had felt the calmness of the water's still centre and this they express in a calm, free movement of melodic strands. In its very lack of definition there could be an increased awareness of notational possibilities. Certainly there was an interest in writing music down which was growing day by day. The children asked for information from time to time and in their next piece we find less use of graphics and almost all the material is placed on the stave.

This next piece is called The Running Fox and it was already complete when I saw the final version of Water Trough Music. Although the earlier pieces grew out of written ideas, the words were left behind once the musical ideas began to form. In The Running Fox the words are kept to become an integral part of the work. Diane, who wrote these words, reads them; then the music is played. Finally we hear words and music together:

2-6 "The Running Fox"

"The fox set out happily from his old barn. He saw a rabbit and slowed his pace. He stealthily crept forward: creep...and freeze...creep...and freeze... then pounce! He was returning happily with his prey when he heard the hunt. Before he could hide the dogs were upon him. But he escaped and limped back to his barn. He lay there shivering, listening to the hunt getting further away."

Like the other pieces, The Running Fox had its origins in something seen near the school. But whereas Water Trough Music and Birds Flying only try to extend the language of factual description - but including facts 'felt' as well as merely observed, The Running Fox goes beyond the observed facts into fantasy. As in The Lonely Tree, imagination is allowed to take over.

This time the group began by going to look at an old barn:

"The Ruined Barn"

"As we walked into the still, wierd barn it gave me a feeling of terror. I looked at the floor and clearly I could see the ancient prints of cow's hooves which had been pressed into what is now dried mud. The slates on the roof have now fallen down around the dilapidated barn. Each beam seemed to creak as I took a step into the old manger. I can imagine a stoat getting ready to pounce on me. The plastering on the walls is now breaking off and crumbling up just as though an ice-berg was breaking up in the sea. The place where the cows used to eat their hay seems as though something has happened there which makes me feel very suspicious. It makes me think of when it was a barn that was used and the cows used to wait to be milked in the stalls. It is just the place for animals to play on a night. I can think of them playing at hide and seek in the old bales which I think used to be there. It makes me think of a story about a knight he always got into complicated places which he could not get out of."

The way in which one idea leads to another in this piece of writing tells us something about the discussion that followed the visit to the barn. They talked about the secret nature of the place - a place to hide - a place from which it might be difficult to escape - the fear of being caught - the fear of being hunted.

"The Ruined Barn"

"I approached the dilapidated, ancient barn, wondering what it would have been like when it was still in use. I looked up and saw the sky peering down at me from large holes in the roof. The rafters seemed heavy and I wondered what it would be like to have one of them laid acriss my body. The floor was uneven and littered with bird and animal droppings. The barn was furnished only by some mangers and a stall. A footprint of a cloven hoof showed up clearly in the uneven ground. In the corner was a large hole, probably the home of a badger or fox."

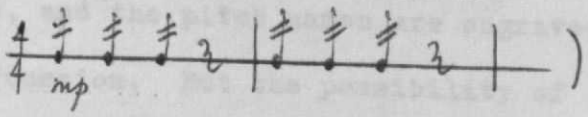
Again, the feeling of being hemmed in - held down by a fallen beam. Although all these pieces of writing stem from the same group experience and group discussion, it is interesting to see individual children striving after original points. In fact this was a fundamental part of the teacher's method:to let everyone benefit from general group discussion - providing a climate in which ideas can grow - but encouraging each child to find something to say that was specially their own. The final sentence of the last piece quoted contains an idea that awoke the imagination of another child in the class and became a story:

"The Hunted Fox"

"I thought that the fox came out of his hole in the barn and went out looking for something to eat. He saw some hunters. The hunters saw the fox and the dogs went after him. One of the dogs wounded the fox in the leg. He limped home to the dilapidated barn. The fox thought he would go to his secret hole. He did and the hunters did not find him. The fox was safe."

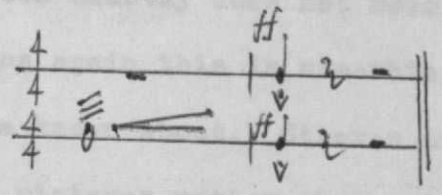
This story has all the elements of the original discussion: the secret atmosphere of the barn, the fear of being trapped leading to thoughts of the hunted fox. The story was reworked to become the narrative quoted on page 97 above, and the children began to think of making a piece of music around it. But first some sections were worked out dramatically:

"We acted it. We practised crawling along and stopping. We thought about the cat creeping towards his prey and we did this on the floor...crawling and stopping...

(Tambourine: 

)

...then he suddenly pounces...

(Cymbals : 

(Tambourine:

From this the rest of the music evolved, a line by line translation of the story but as a whole musically satisfactory, even when it is played without reference to the story.

"Fox Music"

"We made some music about one story. The story was about a fox. Then the next thing we did was to pretend to be the fox, so we pretended to come from our den. Then we pretended to see something and slowed down. Then we froze, then carried on, then froze, then carried on then we froze again, then we went fast and pounced on our prey which was the floor. Then we pretended to hear the hunting horn. We started to run then a dog wounded the fox in the leg. So the fox limped back to his den and was safe."

Looking now at the music itself we find the children's notation quite adequate and surprisingly close to what might be done with conventional notation. There is a confidence in the symbols used, whether they are traditional signs or the pictographs that still appear for all the non-melodic instruments. The children seem to have grasped the idea of indicating pitch exactly. The recorder players knew about this, of course, and the pitch names are engraved on the bars of melodic percussion. But the possibility of showing the lengths of notes exactly does not seem to have struck them - although once again this is something the recorder players must have known about. Strokes on a triangle or a tambourine are given pictures rather than note-heads, although these strokes are carefully counted and related to the melody instruments' material. Often the children asked for information about conventions of notation but we tried to limit what we told them to the needs of the moment. Hence

the correctly written rest which follows the tambourine pictograph in the fox's stealthy "creeping and freezing" music. Elsewhere in the score silence is usually indicated by gaps, and length of notes by distances between the signs on the paper. A clear example of this occurs in the first two lines of music: the fox sets off to "happy music" at a moderate speed (secondal ostinato for glockenspiel and piano) but as he "slows his pace" the written notes of the ostinato figure become more widely spaced; that is, taking longer to cover the ground.

Melodic invention continues to follow closely the lines of primitive melodic development with three note melodies which we feel could easily become pentatonic - as indeed they do in Birds Flying. There is also a tendency to use 'basic' intervals such as the fifth that occurs here in the passage about the hunting horns. These formulae appear quite naturally. The music is heterophonic and 'heard' as a linear texture. There seem to be no harmonic inhibitions. The extended secondal passage that opens the piece is natural and right, even when, on paper, the notes are seen to be clashing with one another. In later examples we shall see how this technique can grow into quite complex music where many apparently unrelated things can be brought together. There is no doubt that these children felt a need for a 'wholeness' in their music and in putting their ideas together they worked to that end.

MS Example 2-6(a)

In The Running Fox the story makes some repetition of

of musical ideas necessary and this in itself gives unity to the music. At the same time there appear to be instances of instinctive 'working' of material. For example, when the wounded fox makes for his hole he limps to a sad little three-note tune which looks as though it is derived from the glockenspiel's opening ostinato. There the fox "set out happily" and with four legs he could run:

MS Example 2-6(b)

But after his fight with the dogs his limp is made quite clear by the recurring crotchet rest:

MS Example 2-6(c)

The children, who were usually so fluent in talking about their music, did not seem to be aware of the relationship of these two passages. If a real relationship does exist it is presumably arrived at intuitively, as indeed is often the case with professional composers.

Rhythmically The Running Fox is quite regular and the notation reveals this strong sense of pulse. Like Birds Flying - which is also rhythmically strong and notated in a way that shows the pulse clearly - The Running Fox began with physical movement. The rhythms felt in the body and consciously transferred to the music, appear unhesitatingly in the notation. Even the hunting horns call with a certainty of repeated rhythmic pattern, though their basic pulse differs from the pulse in other sections of the piece. But that is surely right because it is here, when the horns sound, that the heart-beat changes: the fox lies still, shivering, listening as the hunt goes into the distance.

About this time some of the children wanted to make pieces of music by themselves. Several small pieces emerged, solo pieces such as a "drum tune" by Martin and a "xylophone tune" (for glockenspiel!) by Guy:

Example 2-7

Others wanted to compose music for groups to perform. We had several pieces arising from the exploration of an old shed behind the school. Pamela made a piece called Nesting Time which was about birds nesting in this shed. It naturally depended on her own recorder playing. Martin made a piece about a mouse scurrying about in the shed. It was called The Scurry of the Shed and was based on an ostinato figure occurring in the pattern ABA. B was a diminution of A to suggest hurrying and scurrying. Martin became very involved with this music and was anxious to learn how to put his ideas on paper. At an age when many children enjoy the fun of playing other people's music, Martin found his developing creative skills in music exciting. He persuaded his parents to buy him a glockenspiel at Christmas. This instrument gave him a lot of pleasure but it also became a fundamental tool for Martin, and others in the class, in creating music of their own.

The individual pieces drew on ideas discovered in making the earlier group compositions, but on the whole they lacked the artistry of those group pieces and interest flagged after a very short while. Perhaps the most note-worthy piece at this time was the Christmas Carol. Melodically it appears much more four-square than the tunes produced by these children so far would lead one to expect. It is obviously

influenced by hymn tunes and carols known, yet it has a delightful freshness about it. Diane made up the tune on the recorder and the whole class joined in the task of underlaying suitable words.

MS Example 2-8

No attempt was made to add other instruments to the carol. It was recognised as being unlike the other pieces, partly because it did not grow out of things seen and talked about in class, and partly because it was an individual composition by Diane clearly belonging to the conventions of Christmas. But the group were anxious to have this tune "properly" notated. It was duly written out for them on normal music manuscript paper and Pamela copied it onto the large sheet, using their own by now established format of coloured paper circles for the note-heads. Pamela also underlaid a second stanza of words. The children sang the carol, a few weeks after its making, at their school Christmas service in the village church.

On a day in late January the children had a discussion with their teacher about playtime and the sounds of the school playground. This was followed by some writing on the subject:

"Playtime"

"It was almost playtime, the yard was still and desolate. The only sound was that of a chirrupping in one of the yew trees. It was empty and lonely. Then there was a different sound, the sound of a door opening, playtime

"had begun. A whoop of joy went out from a small boy. Then another and a whole surge of jostling children came out. Some armed with skipping ropes began to skip backwards, forwards, crossed and side. Another corner was filled with some small children playing round games. The chattering of voices echoed round the small group. A wobbling amateur on stilts fell from between the shaking handles he was holding. Yelling and bounding, chariot races were held. One boy fell causing them to stop for a while, but then they went on again, not tiring in the least. Then 'Inside' sounded over the playground and the children turned running inside. A few went to gather coats, so walked rather slowly back. The door closed, playtime had ended. A car whizzed by, the horn echoing. Birds began to sing again after being frightened by the noise. A last chirrup then silence."

"Playtime"

"The yard is silent before the children go out to play. We can hear the birds chirping in the trees and the cars rushing by. I can hear a muffled shuffling. The door suddenly bursts open. Groups of children begin pouring out of school. The silence is over. The boys start to push around the yard in chariots. Then the girls in the infants begin playing at houses. I can hear the ropes swishing through the air. Some of us join hands and play at <u>The Farmer's in his Den</u> or <u>Wallflowers</u>.

"Suddenly a voice echoes around the playground, it is 'In time'. People gallop across the playground and cause a commotion. The silence had come again and the birds begin twittering, and the cars rush by."

All the children wrote about the silence in the playground before playtime begins. This point had obviously been talked over thoroughly beforehand. The gradual crescendo of sounds, the hub-bub of games and the diminuendo at "In time" are all described. The words try to convey the effect of playtime. They tell us what it is like to stand in the middle of a playground with lots of different things happening all round. The children were especially interested in the idea of a very gradual increase in the sound-texture of playtime and its gradual thinning out as playtime ended. There is a totality of playtime noise and excitement that can almost be seen growing out of the original silence. So music begins from silence and returns to silence.

We read some of the pieces of writing and talked about making a group piece of music to be called Playtime. Someone suggested beginning with a fairly lengthy section of "silent music" to be followed by a "happy tune" which gradually increased in excitement. They mentioned some of the round-games and songs. We suggested they might incorporate these tunes into their own music. It was left there: the children would decide how to affect the lessening of tension, the reduction of excitement after "In" had been called.

It is clear that, in making the music, the group hoped to convey the overall effect of playtime as they saw it. But although their earlier pieces seem to pave the way for just such a piece where many different things could happen, Ives-like, simultaneously, they were probably not yet ready for this musically. Beginning with their "silent music" they might have introduced the other ideas on top of one another until all were sounding together. Instead they introduced them in line, following each other, and by increasing the volume gradually and dodging from one 'event' to another rapidly they hoped to give the impression of an involved texture.

The whole piece is an extended ABA. Its length called for a sustaining of musical interest such as the composers had not had to face in their earlier works. They were conscious of the length and of the extra effort it required, but once it was complete, they were pleased with the unity of musical thought they had achieved in the piece.

2-9 Playtime. MS Example 2-9

Sidney: "I like the part where it all comes out: it seems to be a rhythm - it durn't seem like The Lonely Tree - it [The Lonely Tree] seems all a mess now to this music. It's got more feeling in it and playtime's just like it."

Certainly the unity is there. In the main the percussion adopt the role of the children's physical selves, while the melodic instruments reveal the other, perceptive, side of

their natures. The opening "silent music" is a beautiful mixolydian melody performed with great care on the glockenspiel. It is played twice, the first time using the soft-rubber head of a two-headed beater; the second time - slightly louder - using the hard head. The glockenspiel is accompanied by a solo triangle, the whole passage conveying the undisturbed peace of the empty playground. We feel the stillness of the place and the peace of the countryside around.

Into this stillness comes one child, represented by the "happy tune" played slowly on a solo descant recorder. It is a four-time G major melody which ends on the dominant as though its happiness need never end nor seek a point of rest. The triangle remains: the silent space is now occupied by one person and the triangle becomes the 'embodiment' of the idea. The tune is repeated, and repeated again - each time with a carefully graded increase in speed. The final note of the tune is always a minim and the 'short bar' effect seems to suggest the eagerness of the children to get into the playground. The triangle is joined by the drum and then by sleigh-bells, castanets, tambourine and cymbals as more and more children pour excitedly out of school.

The central section of the music takes us quickly from one part of the playground to another. We are given a glimpse of a group dancing in a circle singing Wallflowers; boys romp past us, arms linked behind in a game of Chariots (percussion tutti - a $\frac{6}{4}$ passage that grows rhythmically out of the Wallflowers tune). In a corner little children are

playing quietly, oblivious of the other games (a gentle series of widely spaced notes on the glockenspiel). Again the Chariots crash past and are gone, so that once more we see the smaller children, all their attention given to their game, continuing undisturbed. Crossing the playground we meetthe noisy Chariots again. Suddenly we are in the middle of another traditional round-game: In and Out the Dusty Bluebells. This could be any playground, anywhere.

The Chariots are still racing, the "happy tune" returns (in precisely the same tempo at which we last heard it). But now, we must assume, "In" has been called. The next repetition of the tune is slightly slower (again, the speed is identical with the corresponding passage in the first section). The louder percussion has gone and we are left with the triangle and the drum. The last child goes in: the solo recorder and triangle play the once more. The dominant tonality seems to leave us in the air, for this happy tune cannot end. All that can happen is for the silence to return, which it does as the B flat of the glockenspiel's mixolydian melody cuts across the G major tonality and drops quietly and beautifully down to its final C -"...all the people going in until it's all quiet again..."

"And the silences after their partings are very deep."[1]

The construction of this piece has been most carefully handled by the children. One is reminded of Nadia Boulanger's remark that in coming to any work of art we should be aware of its ensemble and at the same time alive to its detail,

for "nothing can be neglected; nothing can be taken for granted." The skill with which these children have handled the overall effect of Playtime (its 'ensemble') is matched by the skill with which they manage the details: the correspondence of speeds in passages of similar design; the careful gradation of dynamics and instrumentation.

Playtime was a major effort for its composers. Their desire to notate it was slightly dampened by the size of the operation. In some ways, therefore, their score for this piece is less complete than the previous ones. The details which add so much beauty to the performances are not shown on the score; a lot is assumed known. The technique we observed in The Running Fox whereby slower music is shown as more widely spaced notes is not used here. It was a sufficient labour to notate the recorder melody once without having to show its varying speeds in performance. On the other hand, notes of different length are beginning to appear in something approaching the conventional signs, perhaps because something was said about this when the children's carol tune was written out for them. Tails are still not considered necessary but 'open notes' are used, not perhaps as minims but simply as 'notes of more than average length.' One of these (in Wallflowers) is given a dot because they felt its much greater length in relation to other notes. The Chariot music is fully notated twice, though in fact it occurs four times. The quite moving series of notes which makes up the quiet music for the games of the youngest children, is given in full with its repeat,

although the break in this passage where we hear the Chariots again is not shown. The care taken over detail in the written scores of Birds Flying and The Running Fox matches the care given to the performances. In the case of Play-time we see no lack of care for details but indications nevertheless that the composers were daunted by the prospect of writing down such a long piece. Yet in the end this in no way detracts from the value of the music, which in performance is as impressive as anything the group had done so far.

Today we are all very ready to recognise the educational importance of using the school's environment whether we live in town or country. But there is a tendency to put so much emphasis on the learning material provided by a school's surroundings that we sometimes forget the responsibility we have as teachers to create an interesting environment for children in the classroom. Pictures, models and objects of interest can all stimulate children's imagination. The teacher of the class discussed here made the very fullest use of the school's surroundings, but she never neglected this other, equally important, responsibility. On one occasion she took a fossilised sea-urchin into school. This was examined, talked about and used as a starting point for imaginative writing. It lead to a new piece of music called Sea Tower.

Diane: "...the urchin shell was like the dome of an under-sea tower, and a storm came and blew it down. The fish were swimming and then the octopus joined in. After the storm the fish swim again."

Once again the story dictates the musical ideas and their order but there is some indication that the form of the piece itself is conscious and that during composition there was an interplay between the musical form and the construction of the story.

2-10 The recording of 1 May 1967.

MS Example 2-10

This highly imaginative music develops discoveries made in the course of composing earlier pieces. It begins with a quiet glissando across the lower strings of the piano (played with the tips of the fingers, the sustaining pedal depressed). This mysterious sound suggests the great depth of the sea and recurs throughout the piece as a background to the rest of the musical material. In these dark depths fishes swim gently to a tiny 'primitive' three-note fragment which describes their movements: first smooth, then suddenly darting. The octopus joins in. It has more movement than the fishes but its plaintive pentatonic melody keeps us in mind of the sea's rhythm, while the sustained low echo of the stroked piano strings is brooding and sinister. Now the pianist uses the keyboard in a carefully graduated crescendo of two note-clusters in the bass. This is built up slowly as the storm grows in strength and even the depths of the sea seem to feel it. The sustaining pedal is depressed throughout and other instruments (tambourines, castanets, and drum) are built into this wall of sound as the storm reaches its peak. It has been so fierce that

the tower below the waves has been rocked and begins to collapse. A little five-note descending figure on the xylophone gives us a picture of the falling bricks. In the background the roar of the storm reverberates and dies. The piano pedal is raised and depressed again. Once more the strings are stroked gently with the fingers and the opening music is repeated. The storm is spent. Some parts of the tower still stand. To their gently rocking and suddenly darting motif "the fish swim again."

The composers have really used their musical material. They have given the piece unity by their consistent use of the stroked piano-string sound. The music is basically about the sea, therefore it is this 'sea-sound' which must permeate the whole piece. The melodic fragments are related not only to the action but also to the general feeling - the calmness of the sea before the storm, the terror as the storm builds up, the sadness of the aftermath when the storm's destructive power is realised, the quiet return of calm waters. The form grows from the story but the composers are careful to repeat musical material exactly: when an idea returns it is quickly recognisable.

As we had by now come to expect, the children's notation of this music was beautiful in itself. It was carried out with great care and patience by a few of the older members of the group. The pictograph for the piano strings, used in Birds Flying is brought into service again. It does not indicate pitch and we might, therefore, be misled by its

appearance across a treble stave in the lower part of the score. But the treble clef here applies only to the xylophone's music on this stave. Colour distinguishes instruments, though this is not rigid: the piano music for the storm is in red and the "fish swimming" music played by recorders and glockenspiel is also in red. The children asked for help in the writing down of the storm music. The note-clusters themselves were discovered at the keyboard but the children wanted to know about the bass clef (which appears here for the first time in any of their music). Other devices are drawn from earlier pieces, for example the exclamation marks increasing in size to indicate a crescendo (c.f. Birds Flying and Water Trough Music), and the rhythmic notation of non-melodic percussion instruments (c.f. the 'Chariots' in Playtime). The decoration follows previous practice with delightful magazine-paper fish and other sea creatures which add so much to the total impression of the score.

Musically sophisticated in its use of sounds and form, Sea Tower is not unlike some of the piano music of Henry Cowell. In its picture-painting it has a kinship with the music of Charles Ives, except that Sea Tower is the result of imaginative extensions from an object seen rather than the absorbing of a locality and its atmosphere. Even so, there is a move in that direction which seems to lead on into the next piece the children made: A Summer's Day.

A Summer's Day is perhaps more truly Ivesian. The effects are complex because they arise from a complex sensation.

As in the earlier pieces, the children began by writing about their subject. But whereas the first step in making music had previously been to select one or two ideas from the writing as a basis for the music, and thereby to put a working limitation on what was to be done, this time there was every reason why as many ideas as possible should be incorporated. The class had been into the meadow on a beautiful day and heard the first cuckoo. They had listened to bees buzzing monotonously, seen the skylark, heard the grass-hoppers, and felt the gentle breeze. They had looked at the stream and seen the reeds moving lazily in the water. All these things had to go into the music.

There was a lively discussion. Everyone contributed a great many ideas. A central theme-story did emerge: a dandelion seed breaks from its stalk on a warm June day and is carried by a gentle wind across the meadows to rest by a stream. Over and above this story the composers tried to recreate the total atmosphere of the summer's day which they had all seen, heard and felt. The result is an impressionistic tone-poem. Had this come at an earlier stage in their experience of making music an idea like this might have produced little more than sound-effects. But the only truly imitative material in this music is the cuckoo song, and that is used musically and wedded successfully to the other melodic material, some of which seems to grow from the cuckoo song.

From time to time we had talked about the possibilities that music offers for putting together apparently disparate

things. It was clear now that this might help to achieve the effect they particularly wanted in this piece. In The Housatonic at Stockbridge Ives recreates the totality of sensations from a Sunday morning walk with his wife. They "...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 colours, the running water, the banks and the trees were something that one would always remember." All this Ives puts into his music. The technique employed by the children in A Summer's Day is very similar.

Their music went through various stages of refinement just as their writing did. The first versions of A Summer's Day included a number of ideas that were eventually rejected or changed. But after the processes of refinement came the work of consolidation and notation. Then it was clear that a successful piece of music was evolving which could indeed conjure up the magic of the countryside in early June when we might lie in a meadow and let the sounds and sights of summer flow in on us and around us.

2-11 The recording of 20 June 1967.

MS Example 2-11

Although the music is based on a story it is hardly a narrative and it is no longer possible or necessary to trace the story event by event in the music. This is music of sensation and we can hear it and feel it as a whole. Basically its form is ABA but this is complicated by variation

and additional material within the ternary frame, making it ultimately A,A^1(variation plus new material), B,C, A+B simultaneously.

To begin with the dandelion seed tune, in G major and apparently having associations with the cuckoo-song thirds, is played by piano and recorders. It is punctuated by the cuckoo song itself, in C major, on the soprano xylophone. In the background the bees buzz continuously on a low drum tone while the grasshopper (sandpaper blocks) rubs his legs together. All of this is repeated and followed by a third hearing of the seed tune played on the piano an octave higher than at first. This time, instead of the grasshopper's sound, we hear the skylark (xylophone) trilling quite independently of the seed tune's very definite $\frac{6}{8}$ pulse; rising and falling little by little, hovering around a high e. And still the bees buzz.

Suddenly a sparkling little melody appears on soprano and alto glockenspiels in octaves: here is the stream. Our thoughts are interrupted momentarily by other sounds of the meadow: the cuckoo is still there; we feel the gentle breeze and watch the birds flying by. A repetition of this music leads into the final section where we hear the seed's tune as at first on recorders and piano, combined with the stream melody on glockenspiels, each in their own time, while the cuckoo and grasshopper sing and the bees continue to buzz. The polyrhythmic and bitonal complexity of this passage is most effective and we can indeed

feel all the sensations of the meadow concentrated together. But when the children came to notate their music it was here, in these delightful and complex passages, that they met with insuperable difficulties.

Their notation does include some new signs. Working in the way they did, these children cultivated powers of observation and were quick to pick up information and ideas from books and pamphlets in the classroom. Realising the similarity between the rhythm patterns they heard in their own music and the rhythm patterns of a song they knew, they took the $\frac{6}{8}$ time signature from a BBC Singing Together pamphlet. They made a real attempt to write down their opening melody correctly according to convention, but they had not been taught anything consistently about notation and had no grasp of the significance of bar lines. So the anacrusis is missed in the notation, though it is plainly there in the performance. Rests have been observed in the printed music of the pamphlet and the children use them in their music - though incorrectly.

In A Summer's Day there seems to be less certainty than in some of the earlier pieces about the precise points at which things happen. For example, the sandpaper blocks' graphics are more widely spaced than they should be. In fact, in the performance the rubbing of these blocks is continuous throughout the first and last sections. The graphics for the drum are nearer to the facts of performance as there does seem to be a feeling for groups of five strokes. On the other hand, the notation shows each of these groups

as roughly equal to one whole bar of the piano part, although the recording gives us approximately five drum strokes to every half-bar. In A^1 (marked '2' in the children's notation) the seed melody appears to be a ninth higher than at first. In fact it is an octave higher. It looks as though the group writing the music down miscalculated: they knew that G was on a line in the lower octave and assumed that g', an octave higher, would also be on a line.*

The composers' written xylophone part is not an accurate representation of what happens in performance. The notes given are certainly those used but the relationship between the $\frac{6}{8}$ piano melody and the rising and falling tones of the skylark music was beyond the aural perception of the children. In the first improvised versions there had been attempts to link rhythmically the skylark music and the seed tune at this point, but the result was too laboured and it was generally agreed that it would be better for the xylophone player to "do the skylark without thinking about the time of the piano." That way it would be possible to feel the swift rise and fall of the bird and the way in which his song comes and goes. However, when the children tried to put this on paper they found it impossible to grasp exactly what had been happening and relate it to the symbols they wanted to use. In the end they were content to show the notes as quavers, which for them indicated

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*On the other hand this could be an ingenious device for indicating 8va: the notes to be played an octave higher are written on another stave placed closely <u>above</u> the principal stave.

any fast movement, without positioning them on the score in relation to the seed tune.

More surprising, perhaps, is the apparent vagueness of the tambourine part. There is uncertainty about its relationship with the piano melody, yet in the recorded performance it is clear that a relationship is felt. The children's notation of this passage may reveal a groping after an accurate way of indicating time. Other aspects of the score seem to support a growth in this direction. The $\frac{6}{8}$ time signature at the opening is correct. But the $\frac{3}{4}$ signature for the stream music does not make sense when we hear the music performed. The children were interested in the idea of notating time in their music but they could not find ways of analysing it and showing it accurately.

The layout-planning of this score seems to have gone slightly astray at one or two points. For example, when the recorders' trill, so neatly shown in a graphic, gets mixed up with the second hearing of the stream music. Even so, it is an easy score to follow and the composers did have the wisdom to save much labour by indicating quite clearly sections which are to be repeated or played simultaneously. The systems ("lines") are numbered and instructions given:

> "Repeat lines 1 and 3 [i.e. simultaneously] omitting recorders [which were heard first time round] on line 3."

The decoration has all the care and the slightly strange

beauty of a Grandma Moses 'primitive'. Indeed, this time there is drawing as well as coloured paper collage. In previous pieces drawing had been used only in the 'key' to the instrumentation, but here we have an unusually delicate story that requires equally delicate illustration.

2-12 All the music we have looked at so far in this section was made by the group during the nine months October 1966 - June 1967. Towards the end of that period the class began work on a'setting' of the 150th Psalm for a schools' broadcast religious service for Primary Schools to be transmitted in November 1967. The BBC wanted a piece of music composed and played by Junior school children on instruments resembling as closely as possible the instruments mentioned in the Bible. There would also be discussion with the children about how they made the music and this whole section would take the place of the story which was normally the centre-piece of these broadcast services.

I visited the school in the middle of May. The Headteacher and I talked with the children about the Psalms and the Temple music. In particular we discussed the instruments mentioned in Psalm 150. What were those ancient trumpets like? They were probably made of metal, perhaps silver. But doubtless the very first trumpets were made from animal horns? The children knew about such things and someone thought he would be able to get a horn we could use. The "loud organs" of the Psalm were probably

flutes or pipes rather like our recorders. Tambourines would do for "timbrels" and for the psaltery and other plucked stringed instruments we could use a guitar and the strings inside the piano. We talked about the differences between the "loud cymbals" and the "high-sounding cymbals" and decided to use large clash cymbals for one ("That's how it's done when someone grand comes in," said Neil) and the finger cymbals or Indian bells for the other. By now the children had fetched instruments and had begun to experiment.

Alison played on the finger cymbals, at first just a steady series of strokes. Then Sidney suggested that there should be more contrast:"some fast music and some slow." So Alison and Neil began to work out a pattern between the two kinds of cymbal. Meanwhile, Pamela made "joyful" harp music on the piano strings with the sustaining pedal pressed down. She chose the highest strings because she felt the lower sounds were sad. As we shall see, it was this quality of "joyfulness" that naturally dominated the music-making. Although the finished piece is a line by line working of the Psalm, we had begun by looking for one overall feeling in the words, something for the music to be 'about'. As Sidney put it when the music was completed: "We were thinking about dancing and praising and happiness..."

The children divided up responsibility for the various sections of the music. These sections were roughly dictated by the Psalm itself. Diane and Andrew made the music for

the "loud organs" on recorders - music eventually learned and performed by other recorder players as well. Pamela concentrated on the harp music, and Martin, using his guitar, made music for the "psaltery". A small group worked together on a percussion piece which was to represent dancing with drums and timbrels and would be associated with the cymbal music made by Alison and Neil. Some of the children were involved with more than one section of the music. Martin, in addition to making his "psaltery" music, joined Guy and Christopher who were responsible for the "trumpets" which opened the piece. Other joyful and "praising" sounds could be made by everyone using his voice. At the end all these different elements would combine, "every thing that hath breath" praising God.

The form was simple: it followed the psalm line by line. But the task of making separate pieces which would combine satisfactorily at the end was not so easy. The children had been working on the Summer's Day piece and had conquered there the problems of bringing together a number of very different musical ideas, working intuitively for the effect they wanted. Now they were to try to achieve the same kind of effect but it was to be rather more consciously done. They were helped quite a lot by having a basic 'method' of composition which from the start had been simply a process of overlaying musical ideas, one on another.

After the first experiments the children and their teacher began to look around for additional instruments. To begin with the "trumpet" sounds had been played by Christopher on

a toy instrument with a free metal reed (rather like a melodica or harmonica), though the possibility of finding a real horn had been discussed. Christopher's original music was like this:

MS Example 2-12(a)

Within a few days Guy produced two old cow horns which he told us had been dug up by a pig "rooting around in the orchard." He tried cutting the ends off the horns to make a hole right through but they still didn't sound very easily. Then someone living nearby, who had heard about the project, gave the Headmistress two horns that had been properly cut so that they could be blown like trumpets. Not long after that, Martin saw a man polishing and shaping horns at the Yorkshire Show. He was able to buy one of these so that altogether they now had three efficient "trumpets". The boys quickly learned to get a variety of notes which gradually settled down to three principal notes* plus a number of inflections.

Martin also worked away at the "psaltery" music, making up what he described as a "plain tune" (simple?), an idea he associated with "the olden days":

MS Example 2-12(b)

This simple pattern is, of course, derived from the 'pattern' of the guitar's open strings. Martin's guitar was not always in tune and so it occasionally gave us variants such as:

MS Example 2-12(c)

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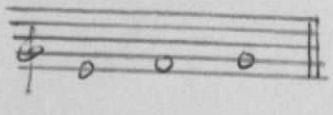
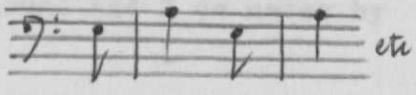
* The principal notes were



For Martin, however, it was the pattern itself that seemed to matter most: its progression towards the higher pitched strings leads into the music of the "loud organs" (recorders) and Martin thought his concluding repeated notes on the top string sounded "more joyful" and "more praising" (perhaps by comparison with the opening low pitched notes?). When he described the music it was the pattern he spoke about:

Martin "You go two notes at a time, twice over: you do like that (plays) 

"I play two strings and then I repeat it, and go up one string and play the next two notes and repeat it."

In notating his "plain tune" Martin used a tablature in which the patterns of repetition can be seen clearly, although he was not able to show the lilting rhythm:

MS Example 2-12(d)

The "harp" music was made on the strings inside the piano. Pamela and Brian stroked and plucked the strings with small plastic counters "because when you run up with your fingernails, it hurts." In fact, this part of the music required a great deal of experiment before the final version began to appear. The Headmistress even borrowed a small harp - the real thing, and a beautiful instrument - but its quality was not brilliant enough and in the end it was rejected in favour of the more exciting sound of

the piano strings. At one point Pamela and Brian did try combining the harp with the piano-string music. The harp played in chromatic thirds was pleasing, though a little too solemn:

MS Example 2-12(e)

Between them, the two children gradually evolved their definitive version for the piano alone, combining glissandi with individual plucked tones:

Pamela "First we both did runs but that didn't seem right; so Brian does runs and I do notes by themselves."

MS Examples 2-12(f)
(i), (ii), (iii) and (iv)

The plucked sounds are chromatic simply because Pamela plucks adjacent strings. Nevertheless, it is interesting to notice how she seems to have made a conscious effort to relate the pitch of the plucked tones which she finally plays on the piano to those she had found on the harp.

For the passage about the "loud organs" Diane and Andrew made a two-part "praise-tune" on recorders:

Diane "We found that the B and E at the end decided very praising." (sic)

MS Example 2-12(g)

Once again, 'primitivism' is evident in the smooth Phrygian mode phrases and the pentatonic thirds. The two parts 'belong' so well, both rhythmically and melodically, that it is not really possible to talk about a 'top' part and a 'lower' part.

The crossings occur so naturally that listening to the recording it is difficult to tell which instrument is the higher at any point. This is a heterophonic union rather than a harmonic one. Andrew and Diana found a sustained major second at a cadence unacceptable, though they were apparently not worried by similar clashes in the middle of phrases. The heterophony moves with an inevitability towards the cadential points where it naturally becomes unison. Andrew and Diane were quite clear in their own minds about the amount of engineering necessary:

Diane "I went into the dinner room and Andrew also went there. He went to one side and I went to the other so that we wouldn't get muddled up in tunes. And while we were making up the tunes we both thought they would go together, so we came in and played them and everyone else thought they would go together...and that's how they went together. We just altered two notes to get them playing together."

J.P. "What were the notes that didn't fit: can you remember, Andrew?"

Andrew "Diane played a G in the middle and I played an A."

MS Example 2-12(h)

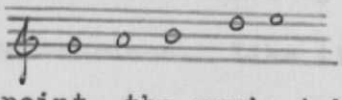
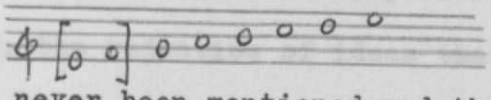
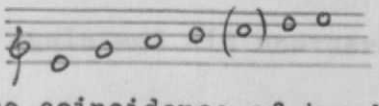
J.P. "What's wrong with that?"

Andrew "It's all discordant."

J.P. "So what did you do about this?"

Diane "I just altered my note into an A."

It seems to have been Diane who had the fiercest objections to the G and A clash. In a subsequent interview she said, "...it sounded a bit odd with someone playing a G and someone playing an A, so we changed it to an A." The discord was "horrible" and sounded "like trumpets." She felt the need for the unison repose at the cadences, and inspite of the insistence on "joyfulness", the strident, trumpet-like quality was too much.

The whole of this little piece for two recorders is built on the pentatonic formula  . With the addition of a c' at one point, the music takes on a modal quality:  . Pentatonic scales had never been mentioned and the children had no experience of Orff's Schulwerk. Melodically the sound is clearly attractive to the children but it could originate in the mechanics of recorder playing. The note F has a difficult fingering. Descending B A G, finger by finger, E comes more naturally as the next note (adding two fingers after G). The more complicated fingering for F* is often taught after E D and C. Whether or not these children had been taught in that way, the obvious difficulties of F would present themselves when it came to improvising melodies. This could account for their use of the scale  Whatever the explanation, the coincidence of two basically pentatonic tunes would explain the ease with which it was realised that "they would go together", and why, when the rest of the

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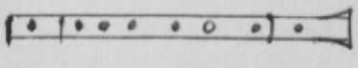
* 

class were asked for their view they also "thought they would go together." Doubtless the ensembles of Balinese gamelan playing have arisen in much the same way.

In the children's notation of the recorder duet there is a serious attempt to align the two parts in score, though without any definition of the rhythmic patterns inspite of the strong $\frac{6}{8}$ lilt and the dance-like quality of the music.

The music for the "timbrel and dance" was made by three children working with drums and tambourines. Like the "harp" music it went through long refining processes involving, inevitably, the rejection of ideas that at first seemed so promising:

Sidney "We went into the store-room, me and Paul and Sheila. We started to think what would be praising and sound happy and dancing... joyful and that. And I thought of an idea and I played it to Paul and Sheila and they thought it was quite good."

But there were second thoughts:

"Then we thought, 'I don't think this is very good really,' and so we went into the store-room again and did another one."

The basic rhythmic pattern as Sidney played it then, and as the children's final notation shows, was intended to be a three-pulse. As they eventually performed it, however, it appeared as a mixture of a $\frac{4}{4}$ and a $\frac{3}{8}$ which

overlapped one another at certain points - one beginning before the other had really finished. This could be part of that same 'telescoping' process we saw with the first improvisations of The Lonely Tree.

MS Example 2-12(j)

Sidney "We wrote it on paper and I showed it to Sheila and Paul and I told them what they were for: like big strokes for the big bangs and little ones for the small ones."

J.P. "What sort of sign do you use for shaking the tambourine?"

Sidney "It's like a V-shape, but upside down."

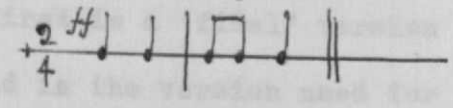
The final version, which included 'Orff' timpani (and voices at the end) was as follows. The children's notation is shown below each system:

MS Example 2-12(k)

In the same way a small group made cymbal music:

Alison "We did it all together, Catherine, Neil and I."

Neil "We all got together and tried to do something with them. We just came upon the rhythm."

Catherine (plays clash cymbals) 

They wanted two pairs of "high-sounding cymbals" but there was only one set of finger cymbals so Caroline played on a triangle:

Caroline "...because Alison said she thought the high-sounding cymbals sounded like the triangle and so I played the triangle with them."

The full ensemble of this section is as follows:

MS Example 2-12(l)

Neil "First Caroline and Alison do four pings on the triangle and little cymbals. Then Sidney and Catherine do four and then I do four and they do 'dah, dah, da-da dah' twice, and then we [all] only do it once."

Sidney described the notation of the cymbal parts:

Sidney "It was Pamela who thought of the idea of a straight stick with a loop at the back of the stick and that to resemble a small cymbal - it's a blue'n for the small, a red'n for the next higher, and then green for the big one. And I went in the dinner-room and I just put it down."

It was Sidney who summed up the whole composition:

"We were thinking of dancing and praising and happiness and it just come into me head of the rhythm..."

The following recordings and their transcriptions show two versions of Psalm 150. The first is a 'final' version made 20 June 1967, and the second is the version used for the broadcast (for which one or two cuts and small alterations had to be made):

2-12(m) Recorded 20 June 1967. MS Example 2-12(m)

2-12(n) Performance as broadcast 14 November 1967. Based on material recorded 26 July 1967. MS Example 2-12(n).

We have now surveyed approximately eight or nine months work by this group. Looking back we notice first the children's developing melodic interests. So often they seem to have ignored heard melodies, particularly diatonic melodies, which might have served as patterns. Unconsciously they return to the primitive three-note and five-note formulae, and this inspite of the fact that they were using diatonic and chromatic instruments. Neither had they had any teaching based on pentatonicism. They made their melodies on the instruments (tunes were frequently picked out on the piano and then transferred to whatever was considered the appropriate instrument) and from the range of possible notes, they selected the aeolian phrase in The Lonely Tree, the pentatonic ostinato in Birds Flying, the modal fragments in Water Trough Music, the beautiful mixolydian opening of Playtime, the three-note fragments and pentatonic melody in Sea Tower, and the pentatonicism of Psalm 150. There are other indications of this unconscious return to primitive musical concepts: the recorder fifths in The Running Fox, the fifths and octaves in the recorder part of Birds Flying, and perhaps even in the intentionally hymn-like melody of their Christmas Carol with its clear diatonicism we should notice the limited compass(G-d') and the predominance of falling thirds.

The definitely diatonic passages are rare. There is the little G-majorish tune in Playtime and the duet fragment for two glockenspiels in A Summer's Day. Hardly anything else is strikingly diatonic. It is as though these

children were proceeding historically, from purely rhythmic origins, through simple melodic passages of octaves, fifths and three-note fragments to pentatonicism and on to diatonicism, their musical growth over the nine month period a microcosm of man's musical development over centuries. Very few of the children in this group had had anything more than the most limited school music teaching. In this experimental work they were thrown back upon their own resources. They did receive immense encouragement and help mostly of a non-musical kind from their teacher but the evidence of their music seems to suggest that they were in the main drawing on those most fundamental resources of music, the natural lilt of corporeal rhythms and the pentatonicism that was once a world language of music and is still to be found in the untutored singing of very small children.

Orff, in his Schulwerk, suggests that this kind of progression through man's musical growing will be natural, and therefore most acceptable, to children. Professor Szabolcsi, tracing the development of the pentatonic formula as a world language in music, says, "Some three-note schemes probably developed into five-note schemes, either through transposition or addition. Yet whenever a higher culture resorted to pentatonicism, a more or less conscious process of selection took place from some general note-supply, for basically every classical [i.e. stabilizing] style involved sorting, sifting and selecting. The instruments of any pentatonic region show this very

clearly - e.g. flutes and pipes in India, Mongolia, Melanesia and Transdanubia are used for pentatonic music although they are all capable of producing more notes."[2] Something very similar seems to have been at work in the children's music we have been examining. Even where the ergonomics of the instrument may have dictated the scale forms, as for example in the recorder duet of Psalm 150, the children appear to have found these forms aurally attractive. The melodies they produced have a very natural flow.

Two other features are worth noting. Firstly, the textures which resulted from the 'layer' method which the children used from the start. The method originated in the first improvisations for The Lonely Tree. In the discussion then we had focussed attention on the principal ideas in the story: the tree, its loneliness, the sunlight, the storm and (as an afterthought) the bird. These ideas were portrayed individually and then overlaid on one another where the story demanded or allowed that certain things could happen simultaneously. For example, the 'loneliness' theme could continue throughout the piece, but the 'sunlight' music must give way to the 'storm' music. Although this was initially a simple expedient to involve as many children as possible, the children themselves quickly saw its potential as a method of composition. So often reminiscent of Ives, they use the method with increasing complexity to show in music sights, sounds and events which must, in the natural world, be experienced in one total sense impression.

Thus, in Birds Flying, the different bird motifs are superimposed on the ostinato which represents the falling leaves, because "the leaves were falling all the time. The leaves were the xylophone." The percussion complex which begins Water Trough Music was the outcome of similar reasoning. Cymbals and sand-blocks "for the crashing of the waves" are heard simultaneously with the soft drumming which represents the wind "like thunder".

In The Running Fox they appear temporarily to abandon the overlaying technique: the music illustrates the events of the story chronologically. Similarly in Playtime no two things happen together, although an effective way of moving speedily from one idea to another is developed in the middle section, often with strongly contrasted motifs, for example the game of Chariots and the quiet game played by the younger children. We are left with the impression of numerous activities all going on at the same time.

Sea Tower returns to the layer method. All the melodic picture-painting takes place against the background of the stroked piano strings suggesting the sea. The technique of superimposition reaches a high point in A Summer's Day and Psalm 150 where it is used quite deliberately to produce an involved texture.

The notation is the other notable feature of this work. It was evolved by the children themselves but had its origins in the particular attitude to written work which the class teacher inspired. It is indeed an outstanding teacher who

can encourage such freedom of exploration while yet losing nothing of the care and application we associate with more formal methods. There was, however, nothing formal in this approach. It is tempting to wonder what might have happened had the teacher known more about traditional musical notation. Certainly some musicians who visited the school during the time the children were making these pieces found it difficult to understand why there had not been more insistence on the use of 'correct' notation. It is arguable that if the children could invent a notation or use conventions to the extent they did, then they could easily have learned the conventions properly before attempting to use notation at all. To do anything else would seem to be a waste of time and talent.

But the notation which they evolved for themselves springs directly from the music - music which is characterized by a freedom of rhythm and harmony. Is it likely that these features would have arisen from a prior study of traditional 'rudiments'? Even if the knowledge had been acquired, as is probably best, by learning to play on instruments, the classroom music available at the time would probably have done little to encourage the children to create their own music, least of all pieces that have such a free interplay of parts as we see in those they did make. Many of the delightful polyrhythmic passages which the children notate - not without success - may look like 'mistakes', but they are in the same tradition as the 'mistakes' which thrilled the young Charles Ives and which became a mainspring for his very

original musical thinking. Perhaps we should approach children's music as Ives' father approached the off-key playing of the Danbury town band: if we "pay too much attention to the sounds" we may "miss the music".

The children in this group managed to notate most of the sounds without sacrificing too much of the music. Using conventional notation we cannot really do much better. It is possible that to attempt anything more 'exact' than they do would destroy many of the most delightful aspects of the pieces. The music-reading could easily become so complicated that in performance the spirit would be lost. This same problem is not unknown to some contemporary composers and the solutions they find are often similar to those discovered by these children. Recently composers such as Bernard Rands and David Bedford, rightly scorning the idea of 'educational music', have been providing material which can be performed equally effectively by children in the classroom or professionals in the concert hall. The notations used are frequently graphic, having little to do with traditional systems. They could quickly stimulate children's imagination, spurring them on to make similar pieces for themselves. The children in our Yorkshire school had nothing of that kind to stimulate them, but as their own music and its invented notations grew its very freshness provided incentive to create new pieces. It had all the qualities of a <u>living</u> language.

Once the basic procedures had been thought out, additional symbols could be learned or invented to deal with the problems

raised by each new work. Had we decided that the children should first master the traditional notation so that they would be equipped to deal with problems, it is possible that the incentive to create, the excitement of discovery, would have died. Some conventional symbols were taught but they were few in number and generally of the simplest kind - crescendo, repeat, pause, and so on, with occasional help in positioning notes on the stave. The children found out quite a lot for themselves by studying a music hymn book.

The plan to allow things to develop in this way was, of course, formulated quite deliberately at the start. As a guide to a possible classroom approach in the Junior school the experiment might indicate that

(a) there is a lot that can be done musically for children by the non-specialist teacher who brings to the task little more than her own enthusiasm.

(b) the role of a specialist music teacher in a school could be one of encouraging the musically untrained teachers to explore with children the creative aspects of music in relation to other work, such as creative writing and art. The specialist teacher could be a source of musical information to give detailed guidance to the children where it was needed, working sometimes alongside the class teacher. But the principal initiative for the work would rest with the class teacher who would have the closest contact with the children and could plan projects that would involve them with a variety of creative activities, music included.

(c) the music comes first, the notation afterwards, but

if we can encourage children to notate their music is some way this may in itself be a spur to them to make more music. There is a feeling of achievement when a piece is completed - especially if care and patience have gone into the presentation - a feeling comparable with the finishing of a poem or a painting. To define clearly on paper what until now was only an improvisation, and therefore temporary, is really to compose. The music has a permanence it did not have before. The completed composition may even be displayed on the classroom wall, as poems and paintings frequently are. But the processes of notation are bound to be laborious and may not appeal to every child. If a child does not enjoy doing it, it is probably best left alone. The time could be used more profitably playing with sounds and improvising more music, for in the last analysis this is what it is all about.

A postscript needs to be written to the account given above of work by this group. In a small school traditions are formed quickly. The children are still (May 1970) making music and presenting it with the same degree of care and skill. Many of the original members of the group have gone on to Secondary schools but there are still some who were there when The Lonely Tree was made. Katherine, who made the 'loneliness' motif on the piano, now, aged eleven, plays the trumpet with considerable musicianship. Treble recorders have been introduced and more children play. The music they make has changed very slightly in character. The melodies have become stronger and more distinctly characterized. Complexities of disjunct

movement and chromatics have been brought in to produce effects that might previously have been got by sound-effects only. The range of subjects has increased and the imaginative ideas have gone far beyond the immediate environment of the school. In a piece called Driftwood Music, a small piece of wood floats down a series of waterfalls and out to sea. It has a number of different adventures - each characterized by its own distinct tune - including passing a quiet island and then having its peaceful floating disturbed by shouting and wildly dancing natives. Eventually, to a "cold' tune" on the xylophone, it drifts into the arctic seas..

But still of first importance is the inspiration drawn from things close by. With great skill their teacher continues to help the children to look searchingly at the most ordinary things and to exercise their imagination on everyday events. So often this is material for music-making. One of their most recent pieces is called The Two Trees. Like The Lonely Tree with which the whole experiment began, it is at heart a sad piece. The children went for a walk on a sunny day and saw two trees: "...one was a sad, dreary tree - it was a sycamore tree and all the leaves were battered. And then we went over to a very happy tree and it was big and bold. When we came back we passed the sad, dreary tree again." 2-13 Recorded 5 May 1970. Against a subdued background in which rice is rolled across a tambour skin and chime bars alternate with glockenspiel measured and improvisatory passages on a four-note motto, melodica, recorders, xylophone and trumpet draw a procession of three tunes: tableaux presenting in their differing moods the trees the children had seen.

MS Example 2-13

GROUP 3 - The Children's Theatre Workshop, York. This was not a school group but the sessions were, nevertheless, 'learning situations' in the best sense, the children learning by experiment and co-operation in the club-like atmosphere of the Saturday morning meetings. Children came from a variety of backgrounds in the city and the age-range was wide - from eight to thirteen plus. The group is included here along with accounts of work in Junior Schools principally because the methods of working in the Theatre Workshop have so much in common with the aims and ideals of Primary education. Secondary school time-tabling tends to rule out this kind of approach.

Occasionally the whole Workshop operated as one group but the more usual arrangement was for the children to work in classes based, broadly speaking, on school-type groupings. Throughout the morning the various classes were offered a series of activities - movement, mime, music-making, drama improvisation, and art. Sometimes two activities would be combined, the group leaders working as a team.

To begin with the Theatre Workshop meetings were held in a more or less empty Georgian house owned by the University of York. The house itself was interesting and offered quite a lot of scope for imaginative exploration but the rooms were small and after a few months the Workshop moved to more suitable accommodation in the Dance Department of the local College of Education.

The examples which follow are taken from work produced during the Autumn term 1966 and the Spring term 1967.

On successive Saturday mornings throughout the Autumn term 1966 the members of the senior group were involved with a drama project based on the story of Nero and the burning of Rome. Each session began with forty-five minutes of movement exercises, frequently linked to dramatic ideas. In some of these periods the children produced their own music and the sessions generally led into more detailed drama improvisation on the Nero theme.

2-14 Recorded 8 October 1966. Music derived from movement exercises. In the first of these exercises the children had been told to move about the room in any direction they chose but aware of the points to which they were moving. Arrived at a point they were to pause, concentrating on maintaining a stillness even though others around them were moving. From the point of stillness they had considered their next direction, level, and so on, eventually moving on in a kind of growth from the still point. Again they arrived, and again there was a point of stillness from which the following movement grew. They had continued in this way for several minutes, everyone exploring the space around them and paying special attention to the points of stillness whenever they 'arrived'.

These first attempts were followed by more controlled variants of the idea. One version would involve only fast movements to the points of stillness, while in another they would make slow movements. A third version tried to combine both fast and slow movements towards the points of rest.

Then everyone was given a musical instrument: temple

blocks, cymbals of various sizes, gong, triangle, xylophone, glockenspiels, castanets, maracas and a variety of drums. They played on these, trying to recall the movements they had made earlier. It was especially important to try to recreate the relationships between the movements and the points of stillness. Everyone played together, each in his own time, just as they had moved together but independently about the room. There might be a sudden spurt of notes rising and falling, or a more leisurely 'movement' up and down and up again. Each player concentrated on his own music, letting the feeling of movement lead where it wanted to and arrive when it would. Points of repose were created just as they had been in the movement work, the players holding these moments quite still even though other sounds were 'moving' around them. During these pauses they considered the next 'direction'. Then their music would travel again to arrive at another point of stillness.

The result of this improvisation, as the recording reveals, is a chiaroscuro of sounds: a constantly shifting pattern of light and dark sounds which come together at random yet make a whole. The total effect is controlled and beautiful, the music clearly changing in character according to the nature of the movement. It can be enjoyed for its own sake as an organisation of sounds, just as one might enjoy the overall effect of a hall full of dancers moving at random through the space yet controlled by the limits of the movement patterns. At the same time, there is a distinct relationship between the sounds and the move-

ments that preceded them. The two are virtually inseperable. In fact the recorded music was used to accompany a re-working of the original movement patterns, at first using the total sound and then, for greater definition of the group's movement, the music of one player.

The sudden 'spurting' movements and their corresponding sounds which came out of the very first exercises led to a discussion on the movement of flames. This was, of course, appropriate to our main theme (Nero and the buring of Rome). We burned some paper in a biscuit tin and watched the flames rise and die. Then, with instruments, we attempted some "flame music" (see example 2-17 below). On this occasion the ashes in the biscuit tin attracted most attention, and discussion prior to the drama improvisation centred around the ashes of burned Rome and the actions of some Christians who had been in hiding but were now wandering disconsolately through the wrecked city. The children experimented with music to accompany this scene and after some drama improvisation by the whole group on the idea of "returning to the place where you once lived and finding among the ruins something you had once treasured" a very successful piece of music emerged:

2-15 The final version of the Ashes Music (Christians wander through Rome) made by two boys.

MS Example 2-15(a)

In the first improvisations of this music (recorded example 2-15(b)) the instruments were almost completely

independent of one another. Gradually each player became more aware of what the other was doing. The final version (notated in Example 2-15(a) from the tape recording) has a much firmer sense of direction than the earlier attempts, inspite of an uncertainty about how to end. The three instruments play distinctive roles: the xylophone's solemnly dragging footsteps illustrate the wandering of the Christians. The mainly stepwise melody has a vaguely 'lost' quality, intensified by the unequal lengths of the phrases in the first half of the piece. Above this, the glockenspiel melody is for the most part atmospheric, its gentle rising and falling through a compass of not more than a fourth may be intended to suggest the misery and despair in the hearts of the survivors. The lightly stroked cymbal represents the glint of metal or whatever among the ashes: the finding of a once-treasured possession.

Altogether this little piece conveyed well the feeling of the scene and it is interesting to note that the composers attempted to get the effect they wanted by combining melodies when they might so easily have resorted to a pattern of atmospheric percussion sounds. In fact, this music did much to intensify the drama.

2-16 During this same session (8 October) the play began to take fairly definite shape and further experiments were made to create appropriate music for the different scenes. For example, at a point where Nero's soldiers marched a weary procession of prisoners to the palace, a

group using drums, gong, cymbals, triangle and claves, improvised a solemn march. At first the sounds were random and disorganised but in the course of several attempts a more definitely march-like character was brought out. The final version is a clear and coherent Solemn March with its steadily throbbing beat occasionally subdivided by triangle and claves decoration (MS Example 2-16), the whole piece building gradually in tension towards the grim crash on the gong at the point where the prisoners bow before the Emperor.

That morning's work ended with a run-through of the play as far as it had evolved, with the tape-recorded music as background at the appropriate points. Everyone agreed that the music helped the action.

Work on the Nero play continued on Saturday mornings throughout the term. The recorded music was used to add atmosphere, 'props' (spears, helmets, and so on) were made during the Art periods and used in the drama improvisations. Sections of the play were now worked on in detail, perfecting material in this scene or rejecting unsuitable material in that. There were problems. The boys, attracted,as boys often seem to be,by the more bloodthirsty episodes, wanted to kill off so many characters that it simply became humerous. At times it was like a guyed version of The Spanish Tragedy. The children had done some preliminary research on the historical background, but once the slaughters began historical accuracy was forgotten. In particular, the end of the play needed a great deal of work before some of the

boys could be persuaded to abandon the 'cowboys and Indians' flavour they had given to it.

The sifting and refining process demanded a frequent return to specific exrecises in movement, drama improvisation or music. For example, on 29 October 1966 we went back to the scene in which Rome was burned, the flames untamable, the people panic-stricken, the houses falling down. In the play this had become nothing more than a disorderly running around the room. It needed excitement but it also needed direction. We recalled the earlier experiments with "flame music" and treated this section now as a "Flame Dance". The children worked in groups of three to evolve movement and group shapes suggesting leaping and twisting flames. They were to work on ideas that could be established and repeated. As each dance took on a definite pattern the children were asked to find suitable musical instruments and make music for the dance. The musical organisation was to parallel the movements. The results were recorded and then used to accompany the dances themselves.

2-17 Four of the Flame Dances

2-17(a) Dave and Tom using two 'Orff' timpani and some large cymbals. The music is a study in crescendo and decrescendo. It lasts in all only thirty seconds, of which the first fifteen seconds are a very carefully controlled crescendo on rolled timpani and suspended cymbal. At the climax, three fortissimo strokes on the cymbal are accom-

panied by the timpani swinging from tonic to dominant. The drums were tuned to A flat and E flat: not designedly tonic and dominant. The player wanted a distinct difference between the two drums and his tuning resolved itself onto A flat and E flat.

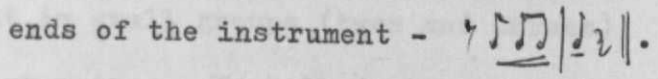
MS Example 2-17(a)

The third cymbal stroke is allowed to die away while the timpani repeat their swinging figure, though with less force. The music gradually calms during the final ten seconds, dying completely away into the silence out of which it grew.

2-17(b) Another short piece lasting about thirty seconds. Richard and Chris, using a hand-drum and a tambourine, create an effective 'sound-picture' of flames rising and flickering. It begins with violent drumming through which the sounds of the tambourine gradually appear. They rise and fall in volume and the instruments subtly change places: the violence of the drumming transferred to the tambourine while the gentler flickering is taken over by the drum. The music calms, the drum ceases and the piece ends with a few small shakes of the tambourine - the embers, perhaps, faintly glowing and then fading into nothing.

2-17(c) This group - all girls - produced a piece which was rather different from the others. Instead of the instruments rising and falling in volume together or in some controlled kind of 'contrary motion', blocks, tambourine, side-drum and xylophone are more or less independent of

each other throughout. A gentle tapping of the blocks forms a background to a random flickering of sounds on the other instruments, first one and then another coming to the fore or fading into the background. The fact that this piece is slightly longer than the others (fifty seconds) may be due to the independence of the players: there was some uncertainty about how or when to finish.

2-17(d) A piece by another group of girls. The music is for xylophone and sand-blocks. Thirty seconds in length, it follows the style of the earlier examples. The two instruments work together, rising and falling in pitch and volume to suggest the movement of flames. The xylophone player 'scrubs' the bars with the felt hammer, occasionally tapping on the wooden ends of the instrument -  . The conclusion is definite and considered: a gentle slowing down.

There were other pieces on the same theme. Only one was unsuccessful and that came from a boy who had chosen to work alone and use the piano. All the pieces had similar musical characteristics: the use of instruments on which 'flickering' sounds could be played, instruments capable of being played very quietly or very loudly and on which crescendo and diminuendo could be carefully controlled. All showed a sense of atmosphere and colour and movement. Most groups felt the need of some overall plan or design for the music, and in this they were helped by the work they had previously done on the dances.

The work had been so successful on 29 October that we felt it should be continued in much the same way the following Saturday. This time the children watched matches burning and after some discussion tried, in movement, to capture what they had observed. The match burned with a large steady flame out of which came little bursts of other flames as new wood was reached. When we blew the match out we saw its black, twisted shape - "withered" was how one boy described it. All of this the children tried to convey in movement but at this stage without music.

The withered, burned match suggested an ending for the Nero play. A mournful, quiet ending might be an answer to the 'mass slaughter' we would otherwise have to accept. Some musical experiment in small groups (twos and threes) followed the movement exercises. We talked about melody and tried making short melodic phrases to parallel the movement. Some of this music was recorded and plans were made to select from it the music for the final scene.

We also discussed some other points in the play where music might help to add 'atmosphere'. The group felt the opening could be enhanced by a fanfare and, perhaps, a march for the entry of Nero's guards. Tom made a cardboard trumpet and sang a fanfare through it (Example 2-18).

MS Example 2-18

2-19 Chris, playing on the xylophone, made the Soldiers' March. Having invented his simple but effective march tune, Chris was joined by another boy with one of the Orff timpani.

Together they experimented for some time with the March, varying the speeds on repetitions of the tune or bringing the piece to a close with a very marked slowing down. These variants were eventually abandoned and the final version is simply four repetitions of the march tune at a steady pace with some variation in volume and in the drum accompaniment.

MS Example 2-19

All the music for Nero was improvised, worked on and remembered. There was nothing written down. Ideally the completed play should have had 'live' music but the actors were also the musicians and so the only solution was to have the music on tape. This is never a very satisfactory method unless the recording and play-back quality is of the highest standard. In this instance the problems were increased by the excessively resonant gymnasium in which the performance took place.

2-20 A recording of the completed play, 19 November 1966. This was not a performance in the sense of being given before an audience. It was more a 'summing up' of the term's work and the only people to see it were the other members of the Theatre Workshop.

The play begins with Nero calling for his guards. They march in to the accompaniment of the solemn march music. Nero announces his intention to burn Rome and build a new city to be named after himself. He orders the guards to set fire to the city. They ask what their reward shall be and are told that they shall be made "senates". Nero

orders further that the guards shall seize as prisoners any Christians in the city so that blame for the fire may be laid on them. The guards go.

Rome is on fire. The houses collapse and people are trapped under falling beams. The music of the Fire Dances provides a background to this section, signifying, as it dies down, the end of the fire in the city. Rome is left in ashes and the people who have been in hiding - a party of Christians among them - wander sadly through the wreckage trying to find what remains of their homes.

The guards appear and seize the Christians. They are led in chains to Nero's palace.

Nero orders the execution of the prisoners. Some are killed there and then with swords. Others are taken off to the arena and "the lions".

Nero does not reward the guards as he had promised. They plot his death. The guards kill Nero and the play ends, the closing episode accompanied by a repeat of the menacing music of the first Fire Dance.

During the time in which the senior group had been working on Nero the other groups had been involved with different projects of their own. Throughout the Spring term of 1967, however, the Theatre Workshop centred all its activities around the story of The Pied Piper of Hamelin. The project was planned so that even the youngest children could contribute, though the principal roles would naturally be taken by the older members of the Workshop.

As in Nero, specific episodes in the story were often approached by way of more general 'exercises' and experiment, both in drama and music. For example, it had been decided that the junior group would be the rats in the Pied Piper play. To do this they would have to learn to move stealthily and with scuffles. Their class on 14 January began with a short period of free play with musical instruments (several xylophones, one alto glockenspiel and a tunable drum). This was followed by some drama improvisation based on material by Rose Bruford: "A bucket of water falls all over you. How do you react?" And, "You have a very big dog. Take him for a walk. He pulls you along: pull against him. He sits down and won't move. Walk around him stealthily. Pick up his lead quietly and give it a tug."

At this point it was thought that some stealthy music might help the movements. The children were asked which instruments they would choose. They suggested the bass xylophone and the drum. Stephen played very quietly on the xylophone and was joined by another boy with the drum. The other children, asked to comment, said that the drum music was too fast, though they all felt the xylophone music was right. A girl took over the drum and played slowly with the xylophone. Everyone agreed that the result was now satisfactory. The music was recorded and used to accompany the whole group's stealthy movement (Example 2-21). This music was never anything more than a brief

improvisation. Its only function was to help the children think more deeply about the implications of their movement exercise. We did have some discussion about how to end the piece but time was short and it was never taken any further as music. Similar exercises were used in other sessions, for example:

2-22 A piece of "scuffling music" made by the junior group on 4 February. The gradations of volume are sensitively arranged.

2-23 The junior group experimenting with glockenspiels to produce a very delicate "scuffling". The scuffling idea is reproduced physically on the instrument by 'scrubbing' in circles. Over this a solo glockenspiel improvises a gently meandering melodic line:

MS Example 2-23

The senior group were also experimenting with improvisation in music and drama. They were primarily concerned with the characters of the Piper and the citizens.

2-24(a) An early attempt to make music for a character described simply as "a mysterious man".

2-24(b) The "mysterious man" has now been identified as the Pied Piper and the group try to make music which will be both descriptive of his character and at the same time suitable for the tune with which he enticed the rats and the children.

2-24(c) Another example of the Piper's music. The monotonous and hypnotic repetition and the limited compass of

this music go a long way towards achieving the magical and mysterious effect required by the story.

MS Example 2-24(c)

2-24(d) This music, for xylophone and drum, is meant to convey something of the excitement (and also, perhaps, the panic) associated with the children being led away.

MS Example 2-24(d)

Starting at a steady pace with a fairly coherent rising figure, the xylophone improvisation gradually increases in speed, becoming wild and disjointed. At the same time the drum accompaniment increases in tension, the piece ending with three violent drum strokes suggesting, perhaps, the finality of the children's going.

2-24(e) The music ultimately selected as the Piper's music and used in the final version of the play.

MS Example 2-24(e)

This is indeed <u>pipe</u> music, played on the recorder. The instrument is used pentatonically.* The dance-like music with its magical repetitive patterns and limited compass, rises only rarely to anything like a climax and has something of quality of a medieval estampie. It would not be difficult to imagine that such music might indeed entice or hypnotize. The only real weakness, musically, is the percussion accompaniment which is far too vague. The players on triangle and side-drum do not seem to feel the melody

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* That is, the gap between E-G occurs naturally by the addition of the first two fingers of the right hand. See page 129 above.

sufficiently strongly to be able to enter into its dramatic atmosphere.

Once again the music had to be played from a tape-recorder for the final 'performance'. As this was the climax of our term's work it was recorded on video-tape so that all those taking part would be able subsequently to see the overall effect of what they had done. As successful as this was visually, it would have been more satisfactory had we mixed in the tape-recorded music at the editing stage rather than playing it in the hall during the performance. But this is to regard the video-tape as the final product. In the ethos of the Theatre Workshop the final performance was not the principal consideration. The value of improvised drama lies in the improvisation. Music produced as a result of the drama is part of it and operates on the same plane. It is not an addition, as music composed for a written play would be. Inspite of the large numbers involved, the vast space in which they performed and the limitations of re-playing music over loudspeakers, it was integral to The Pied Piper that the music which had evolved side by side with the action should happen simultaneously with the action.

The opportunity to create their own music for the drama taught these children something extra about dramatic atmosphere that the exclusive use of recorded music from discs would possibly have failed to bring out. There is an interaction between experiment with sounds and drama improvisation, the one feeding into the other, which is valuable in itself.

In the work described above there was never any attempt to 'perfect' the music beyond the point where its general direction was clear and could be remembered. Nothing was written down and to a certain extent every 'piece' remained an improvisation, albeit a 'worked' improvisation. This situation arose partly from the limitations of working time in the Saturday morning classes and partly from the lack of continuity: with a gap of a week between each meeting it was often necessary to make each session more or less self-contained in order to make any kind of progress at all. Musically this policy may have deprived the children of seeing a piece through to that stage where it could truly be called a composition but logically, if that were to happen the play too should be crystallized and written down in some fixed form. In the context in which we were working it seemed that the important thing was for improvised music and drama to go hand-in-hand to make a new whole.

GROUP 4 - A class of third-year juniors at a large Primary school on the outskirts of Leeds. The school is new and is situated on the edge of a housing estate which is an expansion of what was once a village but has now merged into the Leeds ring-road conurbation. The work of the school was conventionally organised but did not include any extensive music teaching. The only musical instruments available were a few chime bars and a small number of percussion band drums, triangles and tambourines.

In the accounts above we have seen how creative approaches to music can be stimulated by improvised drama and dance. The class teacher in charge of this fourth group was a young probationer who knew nothing of music but who did have considerable interest in modern educational dance and was enthusiastic about children's writing. She agreed to explore the creative use of sound in relation to work in movement and language with her class of 9-10 year olds.

The material described was recorded during the period 8 December 1966 - 15 March 1967.

The teacher began by involving her class in movement work based on two themes: (1) people working and (2) witches and spells. The technique was the same in both cases. As the movement took shape and grew into a kind of dance-drama the children were encouraged to experiment with vocal sounds and to add these sounds to the movements as an accompaniment.

2-25(a) The Workshop. Working in small groups, the children evolved movement shapes and patterns to suggest the actions of different kinds of work - chopping, digging, sawing and hammering. They added appropriate sounds, mostly - though not entirely - vocal sounds. The groups were deployed around the school hall. They were allowed to move provided that they remained as groups. The use of space was good. Between them, teacher and class built up a large scale movement pattern with their own sound-accompaniment so well integrated that the piece became a kind of music-theatre.

It is essentially about what can be done with hands. At

the start the whole class is in the centre of the hall, hands and arms stretched upwards. This group shape breaks into four small groups, each of which go to a corner of the hall and begin their individual movements expressing chopping, digging, sawing or hammering. The groups make their movements in turn, each 'freezing' the group-shape as the pattern concludes and the cycle passes to the next group. After two revolutions of the group patterns, all the children return to the centre of the hall to end, as they began, with hands upstretched.

The hall was very resonant and this added considerably to the total effect of the sounds. The overall music-movement pattern had an impressive wholeness about it, quite a lot of which is communicated through the sounds alone on the recording.

2-25(b) Following their work in the school hall, the class returned to their room and experimented with the sound patterns from The Workshop to make a purely instrumental piece using the rather limited resources available. The recording shows how very successfully they have transferred their vocal ideas to appropriate instrumental sounds. The organisation which had grown out of the movement patterns has become the organisation for the music. As a pattern of instrumental sounds quite independent of its 'programme', the result is musically interesting.

2-26 Halloween. The second of the two themes, recorded in December 1966. The work had been started in early November. The score, transcribed from the tape-recording, shows the

vocal sounds in this large scale piece which, like The Workshop, is really music-theatre. It should be seen to be appreciated fully. Nevertheless, the musical organisation of the sounds is so satisfactory that it is possible to consider that aspect on its own.

MS Example 2-26

At the end of October and the beginning of November the class, with their teacher, had been talking about the old festivals of All Souls and All Saints. They began to make a story in movement. It concerned various groups of witches who met at night, cast their spells and then disappeared as dawn came. Again it was decided to accompany the dance with music made only with voices. The organisation of the music would be derived from the movement patterns.

In The Workshop the sounds were symbols for real work-sounds associated with the different tasks. For the new piece some other framework was needed to channel the children's imagination. It was agreed to find one word which would sum up the spirit of the story. The word Halloween was chosen and this became the musical material in much the same way as one might choose the sounds of a cymbal or a particular drum.

The children experimented with different ways of 'sounding' the word, just as one might experiment with a musical instrument. When a sufficient variety had been discovered, the sounds were fitted in with the movement.

The final version falls into two sections. The first opens with a howl from the whole group. After a pause, four 'soloists' snarl the word 'halloween' in high pitched and quavering voices. The sounds come from different parts of the hall, exploiting both the spatial effects and the echo. The last, distant 'halloween' becomes a high-pitched yell into which all the other voices are joined as it slides down in a long sweep. This leads to the second section in which solo voices alternate with chorus groups, stretching the word 'halloween' across upward and downward glissandi. After four of these a group of boys' voices joins the pattern, interjecting 'halloween' several times in a short, sharp and breathy style. Now the whole group snarl out yet another version of the word: this time it becomes 'halloweee'na'. After a short silence, all begin chanting 'halloweenhalloween-halloweenhalloween...' The chant grows in intensity and rises in pitch. This is the ritual dance of the witches and it is only brought to a halt by the striking of a clock. One final howl from the whole group and they are gone.

Although the sounds are linked to the movement and used principally to heighten the witch-like effect of spell-casting, the pattern made by the sounds has musical shape. It has direction and recapitulation which produce a very satisfactory wholeness.

The children did try to notate these two pieces of music-theatre but they were not very sucessful. They tended to be at the extremes of either inadequate symbols or over-

detailed description of the action. On the whole they were content with the final product in sound and movement and did not feel the pieces had necessarily to be taken through to the point of careful notation. On the other hand, the children did extend their work into individual pieces of creative writing:

2-27 The Workshop

I gasped at the warm, mellow smell
of the newly-formed sawdust.
What had passed me?
A deadly noise screeched in my ear.
The sparks flew up and made the workshop
sparkle and glint.
Sparks flew everywhere, attacking me.
Thin little shavings crackled under my feet,
their smothered smell lingered in the air.
Lying in a tall heap were smooth, slim pieces of wood:
What would happen to them next?
Dark, dirty faces peered at me
with a mysterious air.
I stayed to look at a group of men chopping rough logs.
One of them gave me a quick jerk of his finger,
indicating to go away.
As I ran past him, chips flew up in my face:
"You're not wanted here!"

The Witch

Evil mist lurked all around;
it groped with swirling, dark fingers.
Screeches could be heard in the foul dank air.
Spite and evil she stood,
her hat rested on her scarred, pointed face.
The pot steamed with heat.
In went two cats' tails.
She murmured and cackled.
Wails and cries of terror
echoed through the looming mist.
Black was her gown as she reached out for a bat:
it fell, groping on the ground.

These two poems have a noticeably similar atmophere - and indeed this similarity was evident in the movement and sound patterns of The Workshop and Halloween. The children

apparently felt some relationship between the 'mysteries' of the workshop ("You're not wanted here!") and the rituals of the coven. The atmosphere has something of the qualities of a Hieronymos Bosch painting and the writing is not unlike that description of another slightly sinister workshop in the early English poem about the Blacksmiths:

> Swarte smekyd smethes smateryd with smoke
> Dryve me to deth with den of here dyntes.
> Swech noys on nyghtes ne herd men never:
> What knavene cry and clateryng of knockes!

The class went on to work at a variety of topics which could be explored in writing, movement or music.

2-28 Cat on a Mouse Prowl. A piece made by a small group of children on 26 January 1967. It followed some work by the whole class in which they had written about animals. The glockenspiel player seems to be attracted to the extremes of the instrument and the opening melody - suggesting the cat's steady prowl, looking right then left - is fashioned with care. The second phrase, answering the first, inverts the notes, C-D becoming D-C, f-d-c becoming c-d-f. We hear this twice and then, after a further repetition of the answering phrase, the glockenspiel is joined by steady strokes on a xylophone and on chime bars. The pace quickens (the cat has his prey in sight?) and the tambourine sustains a long roll, increasing in intensity all the time. As the cat pounces all sound ceases at a sharp stroke on a drum.

There were other pieces about animals. Some of these were complicated by too much detail, for example a piece about elephants in which some inappropriately delicate music

on chime bars turned out to be "butterflies in the tropical forests". The idea could have been used with good effect had it been more surely built into the piece. As it was, it appeared suddenly and without musical significance, and it disappeared again before any point could be made. The children needed help with structure. They did get help from their work in movement.

The next large scale piece involving movement and sound was called Ice. By now the class had a working method for this kind of piece. The sounds would be based on a word which summarized the theme. In this case the theme was "winter" and the chosen word "ice". In the event this word did not offer as much scope as the word "halloween" had done and the children wanted to look for other sounds to express their wintry idea.

2-29(a) As the piece begins the whole class are lying in various shapes on the floor of the hall. A beautifully controlled sound from the whole group, part-moan, part-hiss at many different pitches, suggests a cold wind. Little by little the children begin to move, their jagged movements reminding us of the shapes of trees in winter. As each child moves he utters the word "ice" with hard and piercing sharpness. Sometimes it is a solo voice. At other times voices come together as the pattern of movement spreads across the hall. A second section uses tongue-clicking sounds to suggest dripping water in a cold, damp atmosphere. Gradually the figures sink to the floor and the piece ends in silence.

2-29(b) Another version of Ice. The children listened to the tape-recording of their first version and were not satisfied with the vocal sounds. It was suggested that instruments could be added, the actions required to play them being incorporated into the movement patterns. As might be expected, the feeling was for 'brittle' sounds of high pitch - glockenspiel*, chime-bars, triangle and tambourine (to accompany the icy wind of the opening section). The addition of these instruments was really quite effective. Chime bars, glockenspiel and so on were placed on the floor around the hall to be played at random by whoever came close to them in the course of the dance. The class teacher was not completely happy about this, feeling that it reduced the quality of the movement. Some of the children thought the instrumental sounds were too loud, drowning the voice sounds. Striking with finger-nails rather than beaters was one way of overcoming this difficulty but the problem of maintaining the movement quality had to remain unsolved.

The final example from this group's work is less finished than the previous pieces. In fact the recordings represent 'work in progress'. The theme was the Easter story and it was the children's choice. In effect it becomes dance-drama with perhaps greater emphasis on the dramatic possibilities, including characterization. Those parts of the story that particularly attracted the children were the procession into Jerusalem and the procession of the soldiers

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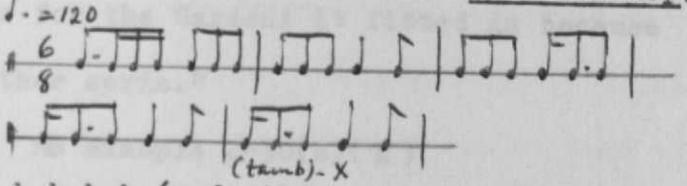
*A glockenspiel had been loaned to the school for this work.

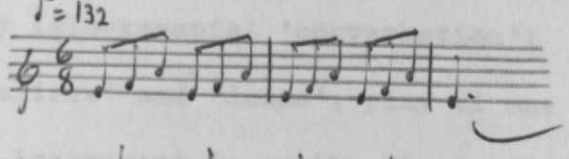
with Jesus as prisoner. The majesty of both incidents came through in the children's work, although they saw the need to differentiate by giving a kind of restrained gaiety to the one scene and a lowering solemnity to the other. The story was divided into sections which were to be presented in order, the whole to be known as An Easter Sequence. The recordings are of work in progress on the first two sections, The Entry into Jerusalem and The Soldiers take Jesus in The Garden.

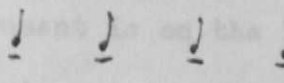
2-30 Easter Sequence. Recording made 15 March 1967. In each section the dramatic ideas which make up the 'sequence' are separated by single strokes on a tambourine.

(a) The Entry into Jerusalem

(i) 'work' sounds (c.f. The Workshop) representing the people of Jerusalem going about their day by day affairs. As in The Workshop, this becomes a sound-pattern with an organised structure. There are seven sub-sections:

1. "ssh/hiss" (c.f. the "sawyers" in The Workshop)
2. claves: 

3. voices: k k k k (and other mouth sounds)
4. sub-sections 1,2,and 3 together
5. chime bars: 

6. solemn drum beats: 
7. sub-sections 1,2,3,5,6 and 7 together

(ii) 'Jesus enters Jerusalem'. A sustained crescendo on tambourine and castanets announces his arrival. The procession moves on accompanied by harmonica and drum. The crowd cheers.

The Sequence is preceded by a child's description of the events:

"The first one is people in daily life in Jerusalem, and Ian, who is the messenger, sees Jesus coming along the road and he comes and that's when it comes in. He's seen Jesus and he's come...he's supposed to say someone's coming when he runs back the way he's come and the people follow him - he points.

"The next part is where Andrew and I go to the bottom of the hall, overlooking from where Jesus is coming, and then they all go and line up at both sides, and then Andrew and I and Richard come through the middle."

(b) The Soldiers take Jesus in the Garden

(i) Chime bars and a solo recorder set the scene with "wavy music for the Garden: it fitted in because it was rather eerie."

MS Example 2-30(b)(i)

(ii) The scene changes: Judas talks with the Pharisee and asks for money (glockenspiel 'conversation': two boys, 'The Pharisee' and 'Judas', play on one glockenspiel. The instrument is on the floor and they move around it playing random notes as the conversation proceeds).

(iii) In the Garden. The soldiers take Jesus and lead him away in a solemn procession (drum, castanets and guitar. The guitar is played by stroking the strings with a ruler, the instrument flat on its back on the floor. The effect is appropriately solemn: full of foreboding and strangely reminiscent of Rondes Printanieres in The Rite of Spring.

Again, the recording of this section is preceded by a child's description of what happens (she had been one of the soldiers in this episode):

"It starts off* when Judas comes and he's talking to a Pharisee and he's asking for money and he got it out of his pocket and threw it down on the floor. Then Judas went. Then the soldiers come and they're going to get Jesus, and the disciples see them and they're frightened and they go away and we go around Jesus and take him back to camp."

The group went on with The Easter Sequence to include the Crucifixion and the Resurrection. They were now nearer to drama improvisation than dance, and the methods by which music was added followed much the same pattern as that of the York Children's Theatre Workshop described above. The music was thought out carefully in relation to the mood of each scene. In particular the children paid a lot of attention to the choice of timbres. For example, the harmonica was

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*She has forgotten to mention the opening music for recorder.

used in the procession for The Entry into Jerusalem but it could not be used elsewhere because its sound seemed to the children to be "too tuneful for anything else". It was only suitable for the "gay music for Jesus riding in".

This group's work grew from very tentative beginnings. Encouraged by their activities in dance they quickly learned to handle large-scale sound patterns linked with movement. From there they went on to use music as an adjunct to drama. But it is perhaps the earlier work in building patterns of sound that is of greatest interest. In recent years a number of composers have provided music for young people based on the 'sound-pattern' idea. Much of this material is excellent for classroom use and offers a stimulating introduction to twentieth century music. On the whole it is abstract music: the interest is in the sounds and the textures. In effect the children whose work is described above were exploring the same territory. Although their starting points were literary, the end result was often a fascinating texture of vocal and instrumental sounds that would bear examination as music quite independently of the literary background or the dance associated with it.

GROUP 5 - Classes of fourth-year juniors at a medium sized Primary school in a predominantly middle-class town on the South coast. The school was opened in 1962. The buildings were new and the situation open and attractive. Facilities

and equipment were good. Most of the children came from homes with a 'professional' background and the general level of intelligence was fairly high. Co-operation between parents and school was good. The school had a reputation for being 'progressive' and there was a leaning towards artistic and musical activities.

In 1965 I began working with a class of 10-11 year olds. This was to be a development of the music and drama activities that had appeared latterly with the infant class whose work is described above (GROUP 1). I visited the school for one lesson period each week and worked with the class teacher, a very skillful teacher who was especially enthusiastic about improvised drama. We planned the work together but in class he took responsibility for the drama while I encouraged the music-making.

The children were intelligent and responded easily to the 'workshop' atmosphere their teacher created in the classroom. Subject barriers had virtually disappeared and creative writing, movement and drama went happily alongside the more conventional teaching of skills. The class had not, however, made any use of music as a creative activity.

The school had a small stock of simple classroom instruments: some good un-tuned percussion, two soprano glockenspiels, chime bars and a collection of home-made instruments of various kinds. Some of the children played recorders. For my work I frequently took into the school instruments that would normally be beyond the resources of a Primary

school: for example, some of the larger orchestral percussion instruments.

All the sessions with this group were similar in plan. Working in the school hall, the class were asked to put themselves into groups of about five. The groups were given working spaces at reasonable distances from one another - there were generally five groups: one in each corner and one in the middle of the hall. A collection of musical instruments was placed where it could be available for everyone.

Having previously chosen an object as a stimulus for the children's imagination, we allowed each group in turn a few seconds in which to look at the object and handle it. Then we gave the groups one-and-a-half minutes to make up stories using the object as a starting point. When the time was up a spokesman from each group was asked to tell his group's story, whether or not it was complete. There were then two possibilities: we could either let each group work out its own story in drama form or we could choose one of the stories and ask all the groups to work at that.

As the children worked at the drama we would go from group to group helping them and at the same time getting from them some ideas for music which might help them in what they were trying to say dramatically. Would they need music all the time? If not, which parts of their story would especially benefit from the addition of background music? We felt too that it was important to stress the differences between music in a play and sound effects.

Sound effects can only imitate - thunder, horses galloping, footsteps on the stair. Although these effects may excite us as we watch a performance, music - even impressionistic music - goes a stage further and can move us to feel the overall sentiments of a play. We tried to get the children to make music that would sum up their ideas rather than illustrate them bit by bit.

At this stage of the lesson we might see some of the groups' work and discuss the possibilities for music with the whole class. We would try to help them to see the opportunities while leaving the choice of sounds and the nature of the music to those who were going to make it. If possible every group would make some kind of music, however simple. The children had to decide who should act and who should make the music, although they might all contribute ideas to the music as, by now, they had contributed ideas and action to the drama. Must the musicians now drop out of the play? If they do, will the action have to be modified? If not, are they able to make their music part of the action, playing and acting at the same time? We felt that making the decisions was an important part of the exercise.

The music had to be made while the appropriate sections of the drama were being played out, and the process of refining the music ran alongside the refining of the drama ideas. With five or six groups all working in the same hall there was a lot of noise but at this age children

do not find it difficult to concentrate on their individual tasks and be oblivious of noise coming from other parts of the room. They also seem to be capable of judging the effect their music will have when it is heard without the noise of activity around.

In these sessions the teacher's role was basically an advisory one. When all the groups had worked out their stories with drama and music sufficiently integrated, we would stop the activity and see each group perform. If they had all worked at the same story we compared versions, but in any case there would be discussion of achievements both in drama and in music.

The objects we chose to stimulate imagination ranged from simple everyday things such as a key to more exotic things - a grocer's model melon or a leather moccasin slipper. The moccasin produced from one group a story about the adventures of a party of pot-holers. Crawling through a narrow, low tunnel, they came out one by one into a cavern containing an enormous figure ("an idol"). As each explorer crawled from the tunnel into the cave the first thing he saw was the feet of the figure.* As he looked up the length of the "idol" he was turned to stone. The tunnel was narrow: only one pot-holer at a time could enter the cave. One by one they were petrified until all stood frozen and silent.

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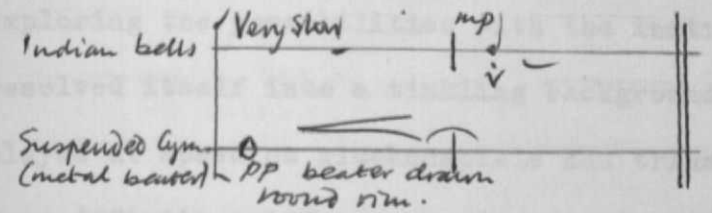
*This was where the idea had begun: from having handled the moccasin.

This story was worked out dramatically by all the groups around the hall. One or two groups used props, such as a line of chairs arranged as a low tunnel through which the pot-holers could crawl. Most of them made music for the crawling - tunnelling music: generally short, fast glissandi up and down a small section of a xylophone or a glockenspiel. Only one group chose to keep their music for the most dramatic moment in the story - the point at which each explorer was turned to stone. Two children in this group made the music using a suspended cymbal and a pair of Indian bells. The idea was a very simple one. As each pot-holer's gaze moved up the idol, the rim of the cymbal was stroked once gently with a metal beater. This sound was followed immediately by a single very soft note on the Indian bells:



Then there was silence while the next pot-holer emerged. The music was repeated as he in turn was petrified. The group were able to gauge the effect of their simple but well organised music inspite of the continual sound of the other groups working in the hall. When we saw each group's final version all were agreed on the effectiveness of this piece in particular. It was an excellent demonstration of the way in which a little music in the right place can heighten and illuminate drama.

No attempt was made to notate any of this music. In

general the work of each session was complete in itself and remained at the level of improvisation, worked on for the major part of the lesson period then drawn to a conclusion. Occasionally a topic would be carried over two or more sessions.

2-31 A recording made early in 1966. The children were working with a student teacher. They had been involved with a project on the planets and this music was made to accompany a Mercury Dance. The class were very ready to accept the student's proposal that they should make this music. Perhaps their experience in our drama/music sessions had paved the way. They chose appropriately delicate sounds for the dance, portraying the mythological Mercury as well as ideas about the stars. After a little time spent in exploring the possibilities with the instruments, the music resolved itself into a tinkling background of random sounds played at speed on glockenspiels and triangles. Over this more definite motifs appeared: upward glissandi in the top octaves of the piano and steady strokes on the xylophone.

After a gap of one year I resumed work at this school with another class of 10-11 year olds. The teacher I had worked with in the drama/music sessions had left. However, the man who had replaced him was enthusiastic about children's writing and his class were by this time producing quite a lot of interesting poetry. We decided to make this a basis for music.

During the Autumn term 1967 the class were working on A project about coal-mining in the early nineteenth century.

They made a model of a mine and gathered information about the working conditions of women and children. Out of this came several good poems describing the miserable life of the child miners. All the poems were carefully typed out by the teacher and displayed in the classroom. From the collection we chose one as a starting point for our music-making:

Pit Children

Down the mines,
all day crawling,
with heads bent and knees sore.
And then back again, perhaps rushing;
always falling.

In narrow tunnels and blinding dark,
That's where we pit children work.

And once again we're crawling like worms,
and working like ants.

In narrow tunnels and blinding dark,
That's where we pit children work.

We wait impatiently
till, one by one,
we rise;
and when at last we reach the top,
Oh the joyful pain of light!
And the relief of pain
to straighten up.

In narrow tunnels and blinding dark,
That's where we pit children work.

(by Susan, aged 10)

We began by using Susan's poem as a commentary for an imaginary television documentary programme on mining in the nineteenth century. In such a programme background music could be helpful. We discussed the kind of music we should need, deciding that it would, of course, be slow and sad. Then we experimented with musical instruments to find the most appropriate sounds. A repeated pizzicato G on a violin was suggested. We also had a

cello and tried this pizzicato, as well as tapping on the wood and bowing the strings quietly and mysteriously above the bridge. We played with a large suspended cymbal, striking it with a soft stick at the rim and on the dome, and playing it with a bow. Gradually a catalogue of sounds was built up and we returned to the Pit Children poem. We drew the children's attention to the poem's refrain. As all the other ideas revolved around those two lines, so the music could convey a similar atmosphere of darkness and despair throughout the piece.

Christopher carefully made a pattern of slow repeated drum strokes, very quietly, while the teacher read the poem's refrain. Francesca suggested adding the cello. The passage was repeated with pizzicato cello Cs coinciding with the drum beats. Tina thought they should alternate, so the passage was tried through again. Then a bowed cymbal was added for its sinister and weird qualities. Bit by bit a pattern was evolved to accompany the words. Once the instrumentation was decided, form had to be discussed in more detail. Should they all play together or would it be better if some started before others? On the whole it seemed preferable to use the bowed cymbal sound only occasionally, but the drum and the cello could make a continuous background of gloom and this was what was wanted.

2-32 Recorded 15 September 1967. This is the first complete version of the music for the refrain. The words were not read because the children wanted to judge the

effect of the ensemble. In fact they were disappointed: the music lacked dramatic impact, perhaps because the material was too simple. They felt that the experiments beforehand had had more about them: at least there had been an interaction between the reader and the players of instruments. We made another recording, this time with the poem read. There was a far greater intensity in the music and an awareness of the poem revealed quite often in simple things, as for example when Catherine waited for 'gaps' in the poem which could appropriately take one of her bowed cymbal notes.

When the music to accompany the refrain was reasonably secure we discussed the rest of the poem. More sounds were tried out in an attempt to find something suitable for the section about coming up to the light. Peggy tried striking together two old preserving pans (part of an exhibition of Victoriana the children had arranged in the classroom). With Simon and Elizabeth she formed a group to provide the "light" music independently of the other players. They tried various techniques with triangles and cymbals and finally settled on a complex of these plus the preserving pans. Illustrating the "rising up" presented some problems. Could we, instead of inventing new material, develop what we had already? It was agreed that throughout the passage referring to rising Christopher should roll the drum, stopping at the word "light" where all the metal instruments would clash as loudly as possible.

From there we went on to explore the idea of relief, of relaxing or stretching up after hours of cramped conditions in the tunnels. There were many suggestions for possible sounds, none of which seemed exactly right. Then someone suggested silence. The rest of the group agreed that this would be a satisfactory solution but were doubtful whether we could think of this as music. We talked about sounds and silences as the raw materials of music, and about the importance of silence as a positive element, which it certainly would be if we used it in this piece as had been suggested. We could not find a sound that would match the idea the poem expressed, but stopping the sounds at this point could produce the right effect.

At last it was possible to discuss the overall shape and content of the music for Pit Children. We would have the sombre, dragging music for the first stanza and the refrain, then a gradual crescendo on a bass drum roll for the "rising" followed by the startling clash of metal sounds at "light". Then silence. As the refrain returned we should hear again the solemn music of the opening.

2-33 Pit Children. The final version recorded September 1967. The poem is read by the class-teacher.

A week later the class listened to the tape-recording and the group who had made the music performed it once more. The music was well-remembered. Other children were invited to perform the piece but although they did this reasonably well, Julia, playing the drum, forgot the im-

portant crescendo at "one by one, we rise". This led to some talk of notation as a way of ensuring an accurate performance. Several children offered ideas but the basic scheme came from Peggy. She suggested a line for each instrument: the drum at the top ("because it plays first"), the cello next ("because it is near to the drum and plays next"), then the bowed cymbal, the rasp (which had been introduced with the drum to increase the tension of the "rising" section) and the "light" instruments. Dots would indicate the drum and cello notes at the opening. There were suggestions from other children for ways of representing the other sounds including "a large empty circle" for the silent passage.

The music for Pit Children had been frankly atmospheric, the low pitched sounds associated with sinister darkness and the tunnels of the mine. Now we developed the ideas which seemed to be leading towards programme music. After a brief explanation, the children were asked to begin work in groups on some music to illustrate the scene in Oliver Twist where Oliver is chased by a crowd.* The 'programme' was a poem by Christopher, aged 10.

The Chase

Oliver scuttles off.
The old man sees him running.
Stop thief! Stop thief!
The old man chases.
Bustling, hustling, other people chase.
Louder and louder and louder
the noise goes up.
Stop thief! Stop thief!

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*The class were reading Oliver Twist as part of their project on nineteenth century England.

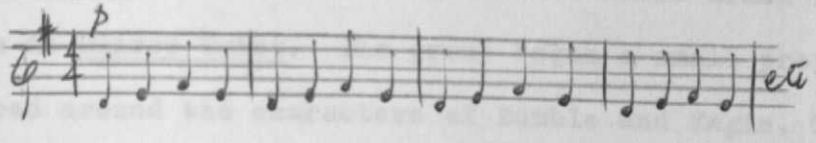
On and on they go.
The milkman drops his milk,
the butcher leaves his shop.
Stop thief! Stop thief!
They all join in,
racing through an alley,
knocking down a stall.
Stop thief! Stop thief!
All of them chase on.

Oliver is tired out.
A hard blow,
and he's on the ground.
"Where's the old gentleman?"
"Ah, here he is."
"This is the boy, I presume, sir?"
"Yes, I'm afraid it is."

There is clearly a crescendo throughout the first two stanzas. The music followed this, starting with gentle taps on drums and tambourines and increasing in excitement with the addition of other instruments (including, from one group, four violins played tremolando). The children felt they needed something melodic to give substance to the piece. The poem was not to be read during the playing so there was no question of the music being accepted as a sound effects background for the words: it had to stand up as music. Some tunes were improvised on recorders but most of them were too long, elaborate and 'wandering' - or too cheerful! Finally Julia gave us a simple three-note phrase which had the right degree of gloom when it was played slowly but which could also be speeded up as the chase proceeded.

2-34(a) The Chase. Recorded 26 September 1967. It begins with four repetitions of the 'motto' played sadly and

quietly by the recorders:



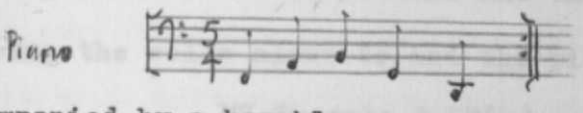
Violins enter very quietly but soon begin to increase in volume. There is a general increase in speed. The recorders, out of time with one another, play in a confused heterophony which adds effectively to the impression of a "Bustling, hustling" crowd. Percussion is added and a long cymbal roll leads to the climax when Oliver is struck to the ground. A short pause and then a solo recorder brings the piece to a close with the pathos of the little three-note theme.

2-34(b) Another version of The Chase. It was recorded on the same day as the example above but followed a long discussion around the question of how to achieve a steady increase in tension. The group decided that the crescendo should be held back as long as possible. This version begins with percussion (tambourines, drums) tapped very gently with the fingers for forty seconds with only the slightest increase in volume. Then the recorders enter, playing their tune quite slowly but increasing in speed at the third repetition. Violins are added, then tambourines come to the fore, by this time shaken quite vigorously. As in the first version, a rolled cymbal brings the crescendo to a climax at which all the instruments cut off abruptly. Eight quiet pizzicato notes on the C string of the cello conclude the piece.

The Chase led to the making of more music drawn from ideas in Oliver Twist. The group began a small project centred around the characters of Bumble and Fagin. This became the basis of more drama, poetry and music. The music drew on experiences with previous pieces, for example the use of 'motto themes' which repeated against a background of 'atmosphere' sounds. As before, the 'programme' of each piece was a poem written by one of the group but the music tended to become a summary of the character described rather than a description of events taking place around the character. Because so many poems were produced on each subject, music was made by small groups (about five children in each) and these pieces of music, interspersed with the poems, which were read by the teacher, made up two 'suites'.

2-35 Bumble. The first of the 'suites', recorded 3 October 1967. The vocabulary of the poems reveals something of the class discussion from which they sprang. Similarly, the music contains some features which are common to all groups. The suite sets out to emphasise the pompous character of Bumble: his stately walk and his self-importance. The writers of the poems have enjoyed stringing together the derogatory words; rather like calling someone names. In the music piano, drums, pizzicato cello, rasp and tambourine are used to provide "pompous walking rhythms" over which other instruments can play melodic phrases or 'atmosphere' sounds.

2-35(a) The opening music. The piano's solemn motto -

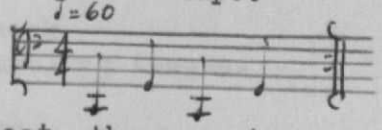


is accompanied by a harshly scraped violin (perhaps to suggest Bumble's unattractive nature), claves and taps on drum and tambourine. The violin plays with the piano, the isolated bowed sounds occurring more or less on the final note of each repetition of the piano ostinato. The percussion takes on a pattern of alternating sounds but seems to be independent of the piano and violin. There is some doubt about how the piece should end.

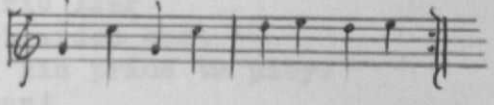
The first poem follows:

> Bumbling Mr Bumble walks proudly along.
> Stout and pompous,
> Sly and posh,
> Richly dressed, quick-tempered and brisk.
> He's a conceited old man,
> Stately and proud.
> He has a coat with gold brading and lace.
> He's got a cocked hat, expensive and grand.
> He's a kind man when there's people about,
> But when they have gone, he's harsh and unkind.
> His speech is pompous like his manner.
> He babbles on for hours on end.
> He's very often a hateful old man.

2-35(b) The next piece of music is more clearly defined than the first. Here the players play <u>together</u> and have obviously worked as a group to give the piece shape. Against a 'pomposo' cello ostinato



cymbals are clashed on every fourth beat, the rasp is scraped, and a treble recorder plays another "pride" motif:



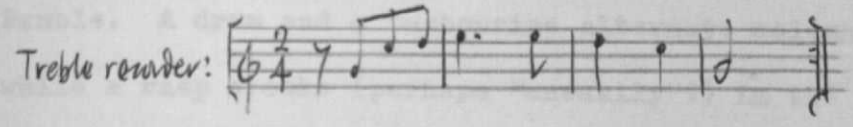
The instruments enter one by one, play in ensemble for

several repetitions of the pattern and then cease one by one leaving the cello alone to end the piece.

MS Example 2-35(b)

Mr Bumble, the beadle, is pompous.
He's toffee-nosed and brisk in walking.
He's fat.
He's a man who seeks respect:
He doesn't really deserve it but - he gets it.
He uses words so long,
Unbelievably long.
He's proudly, richly and stately dressed.
He's vain, he's harsh,
but a bit soft.
He tends to the choleric,
in other words, quick tempered.
He's exceptionally extraordinary is the Parish Beadle.

2-35(c) Side drum and tambourine maintain a steady 'walking' beat over which a treble recorder plays a motif slightly more extended than the one in Example 2-35(b). This melody, however, is rather too wistful and the addition of a few random chime bar notes only increases this impression:



Mr Bumble, a pompous beadle,
Proud to the core,
with clothes stately as you please,
a proud, crafty, toffee-nosed snob!
Brisk, conceited;
a quick-tempered, slow-witted sneak
with a scheming outlook and a bumbling tongue.
Oh, Mr Bumble!
Fat, stout, portly, clumsy person,
complete with cocked hat,
flounced through the workhouse.
This choleric liar
with gold-braided coat
never eats his pride to pity.
The vain man!
Vainer than peacock and pheasant combined,
the village beadle.

2-35(d) A well-organised piece. Coconut shells and claves begin. Xylophone and side drum join them, with dull taps on a tambour coming to the fore on every fourth beat. The whole ensemble strides on majestically in an almost military fashion.

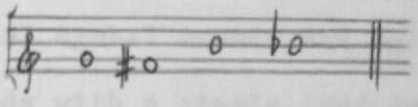
MS Example 2-35(d)

Mr Bumble, a portly man,
thinks he's clever,
says a lot about nothing.
Oh, a conceited man!

Mr Bumble dresses so proudly,
anyone would think he's a mayor.
He's such a bumbling liar.
Oh, pompous, proud man!

Mr Bumble walks so fast
always making sure that he's not last.
Always sneaky, crafty, stately.
Oh, Mr Bumble; a conceited man!

2-35(e) The concluding music. Like the other pieces it has a rhythmic ostinato to suggest the proud walk of Bumble. A drum and a tambourine alternate solemn strokes while a rasp creaks (perhaps "sneakily"?) in the background. In place of the 'pompous' melodic motifs of the previous groups, this piece has glockenspiels and chime bars playing in a dreamy and mysterious heterophony around the notes:

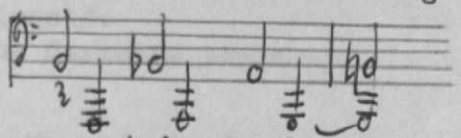


The monotony of the drum beats becomes hypnotic and seems to draw in the melodic instruments. As a piece to illustrate the Bumble poem it is not really successful, but as music it has a mysterious ritual quality that is really quite compelling.

2-36 Fagin. This sequence of poetry and music was recorded less than one week after the Bumble pieces. There is a return to a predominantly atmospheric music with little attempt, apart from some musical 'slitherings', to draw the character of Fagin himself. In fact he is not mentioned by name until the third poem. In the main, the children are occupied with the atmosphere of mystery and darkness - the whole sinister background to Fagin's activities.

Musically these pieces are more interesting and successful than the Bumble series. The imaginative resources are deeper. The little motto themes are still there but perhaps are less obvious than before. The ways in which the children use the sounds (and the silences) show an increase in sensitivity. The imaginative quality of the poetry is also at a higher level. Spoken words and music blend effectively to make one work.

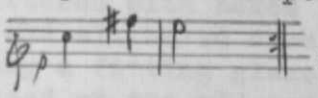
2-36(a) The opening music uses piano, violin, claves and cymbals. A vague and meandering pattern of low 'slitherings' on the piano around the notes



with quiet tremolano violin on the open strings, and some mysterious taps on the claves, is repeated four times. There are occasional cymbal sounds and rattles of a tambourine. The music ends with a single loud cymbal clash.

Slithering through the slime,
it was like diluted soap,
it glided over the moss.
Walls went towering up to a
pin-prick of lightless night.
It was a place of evil,
the devil's backyard of darkness
where the fires were out.

Lichen, an inch thick,
was gathered on the walls.
The fungi stretched in places
nearly across the alley.
Then the slimy thing slid out
into a new place of darkness.

2-36(b) Very quietly, fingers are scraped across a drum. A treble recorder plays  and the pattern builds up with isolated pin-points of sound: pizzicato violin, glockenspiel glissandi and chime bar notes. The piece is quiet and mysterious throughout, ending with a light upward glissando along the length of the xylophone and a single very quiet drum beat.*

Slimy and black as the night,
through the dismal, horrific alley,
the ogre of night creeps,
slithers as it goes.
The unseen, vanishing, unbelievable
smudges of dark slime,
the creepy passage, and him -
just like the fungi on the weatherbeaten walls,
still on his way
taking to secret passages which only he knows,
through forbidden avenues
as dark and dismal as himself.
And as daybreak comes the darkness vanishes
and goes.

2-36(c) This piece is quite short. Like the others it is quiet all the time and fades to nothing at the close. All the instruments play independently. Isolated taps and dabs of sound from cymbals and chime bars are interspersed with little shudders of tremolando violin and cello. At the end the violin sustains a single note pppp.

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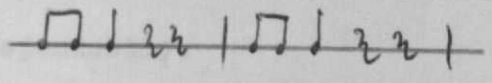
*c.f. the account of the piece called Silence on page below.

The Dark Creature

The dark creature was Fagin.
He was flitting down alleys, dark and cruel,
with ratty smells lurking and wreathing
the withered old man.
He stopped.
He looked.
He walked on again.
Down an alley littered with boxes he slunk.
He dodged light and slithered down alleys.
Sometimes he flung a fitting glance,
sometimes he glared at the odd passer-by.
Always slinking onward.

2-36(d) In this piece a fairly definite pulse can be felt growing from the opening claves taps, rattled pebbles and scraped drum sounds. Later the drum beat alternates with a mournfully 'tolled' bell (chime bar). The piece ends with a startlingly loud cymbal clash.

He slowly, slowly walked along the alley.
The wind blew and the rain came cold
drop by drop down.
A howl of a dog echoed in the alley,
A grey rat ran across the alley.
He looked up and saw grey walls
with dark green moss growing.
Still the wind blew.
Then the sound of thunder came,
and he disappeared.

2-36(e) This music, which concludes the 'suite', uses the minimum of resources. The principal material is a pattern on the claves:  which is superimposed on the sounds of a scraped drum. Every now and again the drum increases in volume and reaches points of climax. At the end, however, we are left with near silence as the claves player taps on the wood with his finger tips.

The success of the Fagin suite is obviously due, in

part, to the teacher's selection of the poems and to the way in which he reads them - his dark-toned voice seems very appropriate for this subject. On the other hand, the character of Fagin has clearly caught the children's imagination and inspite of some similarity between the pieces of music made by the various groups, the care with which they all restrain the sounds of the instruments so that we shall feel the intensity of the darkness and the sinister movements is most impressive.

This suite led to a renewed discussion on the importance of silence in music. We talked about the atmosphere of silence and we commissioned two groups of children to produce pieces of music 'about' silence.

2-37 The first of the two 'commissioned' pieces. Although it does not really succeed as a piece 'about' silence, this music makes extensive use of silences. It is in two sections, each containing distinct elements and, therefore, unrelated to one another. They are unified by the use of silence, here taken to mean general pauses. To a lesser extent the way in which the sounds are used contributes to the unity. Both sections are built on ostinato patterns around which the other sounds move independently.

The elements of the first section are the xylophone ostinato (MS Example 2-37(a)); a drum scraped softly; random, widely-spaced notes on a glockenspiel; occasional drum strokes; a quiet rocking figure on chime bars; and glissandi on a soprano glockenspiel. Apart from the scraped

drum all are fairly loud. This material is built into a continuity which is heard three times interspersed with periods of silence. The xylophone ostinato begins each time and maintains a steady pace throughout at about MM crotchet=72. The other instruments enter one by one playing their various effects in roughly cyclic order. A single stroke on a cymbal marks the end of each period We shall call all this material 'A'.

The elements of the second section are a chime bar ostinato (MS Example 2-37(b)) and an ostinato on two drums (MS Example 2-37(c)). These are used independently of one another but once they have begun they continue steadily throughout an episode. The other sounds - quiet xylophone glissandi, Indian bells, claves strokes, soprano glockenspiel notes - burst around the ostinati in a random pattern. As before, a single cymbal stroke marks the end of an episode. There are three episodes, each beginning with a quiet upward glissando on the xylophone. We shall call all this material 'B'.

The continuity of the music is as follows:

A (with six repetitions of the ostinato)
four seconds silence
A (with three repetitions of the ostinato)
four seconds silence
A (with three repetitions of the ostinato)
B (episode lasting eight seconds)
four seconds silence
B (lasting five seconds)
eight seconds silence
B (lasting nine seconds)
four seconds silence
Coda: a gentle upward glissando on the xylophone.

2-38 This, the second of the two pieces, really does try to convey the feeling of silence. An atmosphere of gentleness and calm pervades all the musical material. Silence is used: there are several short pauses, but they differ from those of the first piece not only in length but also in purpose. These pauses are used to create a feeling of repose. In terms of the musical (sound) material this is a less unified piece than the other, although the atmosphere of quiet calm leaves one in no doubt about the wholeness of the music.

It begins with a single loud cymbal stroke which is allowed to reverberate for three seconds. This provides a contrast with what follows (in discussing the music the children had felt we should not be able to appreciate fully the "silent music" if we did not first remind ourselves of loudness). An episode follows which opens with the scraped drum, very quiet, then a single click on claves followed by a gentle downward glissando on the xylophone. A slightly more definite figure in thirds appears on the xylophone: MS Example 2-38(a)

and this continues while the alto glockenspiel plays:

MS Example 2-38(b)

The figure is repeated two-and-a-half times before it is interrupted by a single quiet cymbal stroke. After a short pause (a moment of repose), a gentle downward glissando on the xylophone announces a repeat of the whole of the first episode. As before, this is concluded

by a gentle cymbal note. Throughout this first section of the music the instruments have played together - not all at once but overlapping with one another, maintaining figures while others entered, joining and leaving until the cymbal has given the signal to stop. From now onward we hear only solo instruments.

The xylophone enters first with a passage developed from what was played in the opening episode:

MS Example 2-38(c)

After a very short pause the glockenspiel plays:

MS Example 2-38(d)

This too is developed from earlier material. It is followed without a break by a soprano glockenspiel variant, the gentle closing glissandi slowing down the overall movement of the piece:

MS Example 2-38(e)

The xylophone returns, its music related to what has gone before but reduced to a single line, and the piece ends with a single quiet stroke on the triangle:

MS Example 2-38(f)

All this music was made on the instruments and kept in the memory of the composers. There was nothing written down. The accounts and examples above are transcribed from the tape-recordings. The essential differences between the two pieces (Examples 2-37 and 2-38) will need little further comment. In the first piece the very de-

finite use of general pauses has the effect of emphasising the sounds rather than creating any feeling of silence. In the second piece silences are used equally positively but with a quite different effect: they emphasise repose and help to maintain the subdued quality which the composers felt they needed to convey the feeling of silence. Both pieces are satisfactory as musical organisations: they have unity, variety and direction. But in character they are very different from one another. Inspite of these differences they have a common affinity with the pieces in the Fagin suite. Having no literary 'programme' they have nevertheless been influenced, or so it would seem, by that earlier work. In fact Example 2-36(b) might almost be a preliminary sketch for the first of the Silence pieces.

All the work we did in this school had a strong literary or drama link. It is perhaps worth noting, therefore, that in these last pieces the children appear to have developed a sensitivity towards sounds and silences which, although it grows out of a literary background, is not now tied to ideas previously worked out in words or action. Following the Silence pieces we played some recordings of prepared piano music by John Cage. The children listened with interest and afterwards discussed the similarities between this music and their own recent pieces involving dabs of sound on a backcloth of silence.

Ultimately music stands or falls as music, as an organisation of sounds and silences. Whatever the literary or

dramatic links - any of which may be of value in leading children to make their own music - it should be possible at some point to leave the stories to one side, for a while at anyrate, and simply listen to the sound patterns that have been made. The Junior school is the right place for experiments and it would be wrong to expect all the work done there to have a 'finish' on it. The teacher's principal responsibility is to increase the child's sensitivity to the world around him: to open his eyes and his ears and his other senses. As valuable as it is to associate the different aspects of this process, it is also important, just occasionally, to draw special attention to one or the other, to concentrate on sights or sounds, touch or smell.

This concludes the examination of work from Primary schools. We have seen that it is possible for teachers with very little knowledge of music to encourage children to explore sounds and make their own music. It is important that we should not impose too strongly on children an adult's concepts of music and in this respect the teacher without musical training may have an advantage over others. He will certainly be less anxious about what he feels should be learned and can, therefore, allow the children's music to develop as it wants to. If he can work in association with a musician this could be of value but it must be the class-teacher's influence, his guiding of the general directions of the children's work, that leads the music-making

forward. It is possible that this will be more fruitful creatively than taking starting points within the techniques of music itself. There would seem to be some grounds for believing that children's music develops along the lines of most primitive musics: from a-rhythmic beginnings with random pitches, through ostinato patterns to quite complex poly-rhythmic structures and, melodically, from two-note and three-note fragments to pentatonicism and modality. Such things are surely worth encouraging.

3 - ENRICHMENT

In 1963 The Newsom Report[1] pointed out the disadvantages at which music teachers in Secondary schools had to operate. Music was "frequently the worst equipped and accommodated subject in the curriculum."[2] Over half the schools visited had no provision for any kind of music.[3] In boys' schools and mixed schools the subject was the one "most frequently dropped from the curriculum and...the only subject in the practical group for which one single period a week is common."[4] Nor was this entirely the fault of time-tabling: there was "an unduly narrow conception of the subject."[5]

It would be unfair to suggest that in the seven years since the report appeared no improvements have been made, but Secondary school music still has many problems and there can be no short answer to any of them. Whereas it is relatively easy to see music as an integral part of general education at Primary level, contributing to the experimentation that must go on in many different directions as a child's awareness develops, the pattern of Secondary education in England is based on principals so different from those of the Primary school that there is, at the moment, small chance of creating a scheme for music that could provide for a growth right through from the Infant school to the upper forms of a Secondary school. The objective of public examinations; the value judgements made about the "usefulness" of subjects; the barrier of the 'subject' orientation itself: these and many other features

of Secondary education combine to weaken the position of music in the overall pattern. It becomes even more an esoteric, specialist area, a mystery to any but the initiated. Worst of all, it is "unimportant", a subject to be dropped.

For most teenagers school music is unreal, yet outside school they frequently develop wide musical interests. The same young people who enjoy pop or sing folk songs to their own guitar accompaniment can often be found playing in Youth Orchestras or singing in Youth choirs and operatic societies. They are also at an age when powers of reasoning begin to develop: they plan ahead and look for general laws in their experiences. We might reasonably expect to see the largely intuitive work of Primary school creative activities developing at Secondary level into formal operations where musical language could be used with clear intentions and increased control. A situation of that kind would presuppose a plan for school music teaching that would carry right through the educational system. As things stand it could hardly be possible. Children enter Secondary education at the moment with a background of Primary school music which may be anything or nothing. This is not to place blame on the Primary sector in particular. If the Secondary schools were to show more signs of valuing music as a classroom based activity, it is likely that the Primary schools would try to do for music what they do for other areas of the curriculum.

There does seem to be a fundamental difference between

the aims of Secondary school and Primary school music. At least there is a lack of co-operation. A Secondary school teacher who wants to encourage some form of creative music-making must begin much as one would with younger children. Although he may rightly expect the added maturity to bring with it a different view of life that will probably affect the ways in which problems are approached, he could be wrong in assuming that, because in a number of other respects a child had reached the stage of formal operations in reasoning, this would necessarily apply to his music making. The dependence upon action, characteristic of the intuitive stage of his development, when a child creating music must work with the sounds themselves, will still be present. It is important that we do not expect too much in creative music at Secondary level just because our pupils show themselves capable of abstract reasoning in other areas.

Without losing sight of ideals, it is nevertheless probably more realistic to see the role of music in the Secondary school as one of providing enrichment. In this context creative activities could be of the greatest importance, increasing perception, thought and feeling, and developing a child's powers of making organisations coherent. At the same time the work must provide opportunities for individuals who show particular musical talent to go ahead in any way they can. Links with other subject areas will be valuable but we must also hope to develop a

syllabus that gives full rein to truly musical experiences at some points. In fact, what is needed is that nice balance between a single subject discipline and an area of general education; avoiding the mystique without losing the substance.

By this time instrumental skills will be gaining ground. Most Secondary schools have some good players. In classroom music they can use their skills, especially in experimental work that will allow the other members of a group to contribute in significant, though less demanding, ways. In this connection it will be useful to have some good quality orchestral percussion instruments. They can be used by those who have not so far had the opportunity to learn an instrument. Many exciting and interesting sounds can be produced that will fit in well with the usual orchestral instruments, yet at the same time there will not be that obvious gap that there might be between a violin and a very simple percussion-band 'toy'. It is essential that the activities we offer young people in music lessons are real. This will apply to the equipment as well.

Success may depend on a re-thinking of traditional approaches. Though without doubt we shall want to preserve all that is good in familiar methods, the position of music in society today may present the music teacher with some difficult choices. Is he to aim at making all his pupils musically literate? - And what, precisely, would

this mean in terms of contemporary music? Or should he aim to develop their understanding of music as an aspect of language, meaningful as a medium which they can use for themselves with conviction? These things are not necessarily compatible. In trying to achieve the first it is all too easy to sacrifice the second. The reading of musical notation must be taught either through the use of musical instruments or through singing. If this is to be successful with all pupils the coverage cannot be great and the music the children can experience through this knowledge is limited. True, we may, by this means, be opening a doorway that will lead to further knowledge and more varied musical experiences beyond school but the evidence would seem to suggest that the membership figures for choral societies and amateur orchestras do not rely overmuch on school music teaching. Then again, we have about us now a large number of musical activities which do not depend on a knowledge of those notational conventions which have characterized western music for the last four centuries. In our Art teaching we no longer cling to the received wisdom of the past. We encourage in children's exploration of materials a spirit of adventure which is part of the same Zeitgeist that envelops the contemporary artist. The significance of what they do does not rely in the first instance on a 'notational' system identical with, say, the usage of the eighteenth century. And to experience twentieth century styles first does not pre-

clude enjoyment of the work of earlier artists. It is the approach to art that matters. This is what we should be teaching. But is it to be done by way of a thorough grounding in historically established techniques or by immersion in the current of today's art and music?

All art is 'living' at the point where it reaches its audience, but there is a sense in which our contemporary art, music, poetry and theatre is more truly a 'living language' because it is flowing from a stream of thought and work that is part of the day to day existence of each one of us. In this respect not only the arts but all contemporary thought and action is derived from the same source. Modern educational practice also comes from it. Music in education must surely be influenced? In fact, it is probably these influences that have produced some of the unrest and uncertainty about music in schools. In the limited time that is generally available on a school time-table for music, it is difficult for any teacher to decide what should or should not go into his syllabus. What are the priorities? If he tries to compromise by merging all possible points of view he gets a very fragmented and unsatisfactory syllabus. If he decides on one course rather than another he must face the criticism of leaving out important areas of knowledge. But in all probability the only thing to do is to recognise that the art of music, involving as it does both performance and creativity, is so wide a field that we can never hope

to cover very much of it in a school life-time. So long as our classroom work involves the pupils in musical experience then school music will have made its contribution to their education.

Whether we like it or not we are going to have to select our field of activity in Secondary school music. If "The Primary school is...for experiments", then perhaps the Secondary school is for consolidation - at least where music is concerned. It is now that we can make firm some of the varied experiences of the earlier period. So we must select. In the Primary school the children will probably have had some instrumental teaching - violin classes, recorder playing, tuned percussion groups, and so on. We might choose to consolidate this by providing at Secondary level a syllabus based on classroom performance of music, enriching the general education of our pupils through experience of a wealth of composed music. To do this kind of thing really well will take up the major part of our teaching time.

It is possible, on the other hand, that in the Primary school our pupils may have had experience of music-making similar to that recorded in chapters 1 and 2 above. Again, to consolidate this we should have to be prepared to devote a large part of our teaching time to it and perhaps to forego some other aspects of music.

We shall need to consider the pupils who want to take music at 'O' and 'A' level in the G.C.E. Naturally they

must receive every encouragement and the syllabus must be taught thoroughly. Nevertheless it is to be hoped that this work would also benefit from a creative approach. It is very easy for an examination syllabus to be restricting, especially in the field of 'set works'. Candidates may hear the one symphony, sonata or whatever is 'set' and then be called on to answer questions on a composer's work with this very limited understanding of his music behind them. Many facets of any composer's music may be approached by way of creative experiment. In the same way that we might, for example, approach a study of Shakespeare's Macbeth by way of improvised drama on themes such as light and darkness; good and evil; strength and weakness; power; ambition; kingship, so work on a sonata-form movement might be preceded by experiment with contrasting ideas in sound.

The process of consolidation should increase musical understanding so that, whether or not the pupils are candidates for a music examination in G.C.E., they are ultimately in a position of being able to think musically, however humble the results. In the last analysis it would seem that we must aim our music teaching in Secondary schools at one of two points: either our pupils become musically literate,in the conventional sense of being able to play and sing fairly complex music from traditional notation (and so able to 'think musically' about composed music), or they become musically aware through the creation

of their own music and so learn to think, albeit in a very humble way, like composers.

In the accounts that follow we shall trace the creative music-making of some Secondary school pupils as we did earlier with Primary school children. Unfortunately it is not possible to witness the process of consolidation that has been outlined above as an ideal. Circumstances prevented the setting up of a control group that could be followed through from Primary to Secondary school. Inevitably much of the work described will appear almost identical in approach with that recorded above. Obviously a beginning must be made and introductions to the use of sound creatively will be much the same whether our pupils are eight, ten, or fourteen years of age. Nevertheless, it is possible, in some instances, to see reasoning at work where a younger child would have relied entirely on intuition and left it at that.

GROUP 6 - Pupils at a large mixed Secondary school in pleasant new buildings on the outskirts of a Yorkshire industrial town. The headmaster had grasped the opportunities offered by a completely new school to re-think the whole pattern of secondary education. There were clear attempts to give the school a 'college-type' atmosphere, removing something of the older school ethos by blurring the lines that divided subject from subject. The teacher in charge of music was chairman of a team of teachers and

known as "Head of English Subjects Group" rather than "Head of Music". When I approached him, in November 1966, he was making plans for some creative work in music based on ideas that would be carried out simultaneously in other areas of his 'subject group' - probably Art and English. Pupils had been making "atmospheric music" on stories about space and inter-planetary travel as a preliminary to the larger project. I joined in with the planning of the next stage. The concept of inter-disciplinary work was built into the school time-table and it seemed an easy matter for the staff concerned to develop the project as a piece of music-theatre.

At a meeting on 3 November 1966 it was agreed that a double class of third year pupils would work for one term on the theatre piece which would include movement/drama, mask-making and music. It would be completed by the end of the Spring term 1967. The story chosen as a basis for the work was a very simple one about a battle between two stags in a forest.

By 15 March 1967 hardly any progress had been made with the piece as theatre. The expected co-operation from English and Art had, for various reasons, not proved possible. Only the music had made any headway. This, in fact, was well advanced.

3-1 <u>The Battle of the Stags</u>. Recordings made 15 March 1967. The two classes gathered in the school hall which was arranged with chairs in rows as for an assembly. The

pupils were to work in nine groups which varied in size from four or five to perhaps eight children. The chairs in the hall did not make this very easy. Nevertheless, the groups had organised themselves to play and, as we arrived, were rehearsing the pieces they had made. There was quite a lot of noise but this quickly ceased and we heard each group perform.

The story had been divided into sections and the sections allotted to the different groups to be 'illustrated' musically. Once the music was made it was intended that it should become the starting point for the movement and art work.

3-1(a) Group 1: The Forest. The first of three short pieces setting the scene. Descant recorders, representing the leaves of the forest, trill in a gentle heterophony around the notes A and B. Two violent chords on the piano draw our attention to the majestic stag who leaps away in a galloping phrase that ends in a distant rumble. The leaves flutter and rustle again.

MS Example 3-1(a)

3-1(b) Group 2: The Wind. Calm chime bars play quietly a gently moving pentatonic ostinato against which we hear a zephyr-like melody on descant recorders accompanied by a lightly rustled tambourine. The limited range of the melody gives it a 'primitive' and 'remote' quality. The overall atmosphere is restrained and carefully controlled.

MS Example 3-1(b) (i) and (ii)

3-1(c) Group 3: The Wind. Another piece to set the atmosphere for the story. An A chime bar is struck solemnly throughout the piece. The strokes are in pairs, the first beat of each pair being allowed to reverberate, the second dampened with the fingers. A soprano glockenspiel meanders gently up and down a 'black-note pentatonic' phrase while another soprano glockenspiel interpolates occasional glissandi very quietly. The second glockenspiel becomes more active, joining the first in a heterophony of pentatonic wandering. As the texture grows more complicated a solo descant recorder plays a wistful little melody and is joined by a breathy bass recorder.

MS Example 3-1(c)

Unfortunately, as the recording reveals, the moaning tone of the bass recorder caused amusement in the group and it is difficult to tell whether or not the descant recorder melody is meant to continue. The texture gradually thins out until we are left with the sloemn tolling of the chime bar alone.

3-1(d) Group 4: Calling for the Fight. This group seems less well-organised than the previous three. The piece begins well but the players do not seem to have thought very clearly about the ways in which they might use their material once they have invented it. The opening - three lowing calls on a bass recorder (MS Example 3-1(d)(i)) - is followed by some urgent drumming (MS Example 3-1(d)(ii)).

That much is fairly coherent. Thereafter the group seems confused over the direction their music should take. Cymbals are rolled together and drums beat insistently; chime bars wander agitatedly and a recorder moans. The climax is reached with a single clash of two cymbals fortissimo.

Although the title announced for this piece suggests merely the preliminaries, we should probably take the cacophony of the second half as representing the fight itself. Certainly the title of the next piece seems to tell us that somewhere between the beginning of Group 4's music and the start of Group 5's piece the fight has begun.

3-1(e) Group 5: Continuation of the Fight. A short piece of quite sinister music, well-controlled. It opens with ferocious note-clusters fortissimo on the lowest notes of the piano. A bass drum intensifies the atmosphere as the stags withdraw and prepare to attack each other again. Rolled clusters on the piano like timpani rolls suggest the combat. They are punctuated by lulls in which we hear tiny dry sounds on a damped triangle and a very quiet sustqined D, low on a descant recorder. The ferocity returns and a clash of cymbals tells us the fight is over.

3-1(f) Group 6: Death. This is probably intended to be a Dead March, but although the recorder tune is promising (MS Example 3-1(f)), the overall effect suggests that the

group have not really come to grips with what they are trying to do. The principal instruments are recorder and side-drum. There is some half-hearted rattling of a tambourine which is not very well integrated with the other instruments. None of it is very death-like music!

3-1(g) Group 7: The Victory. This can hardly be called a piece. In the context of the proposed music-theatre production it would be little more than a 'triumph' motif to be heard at the point where one stag was victorious over the other. Short as it is, though, it is controlled and effective. Two majestic cymbal clashes frame an impeccable little fanfare played by a solo trombone:

MS Example 3-1(g)

3-1(h) Group 8: The Victory March. Very short and not very march-like, this is a joyous cacophony of chime bars and descant recorders dominated by a side-drum. In-spite of its lack of substance it is not inappropriate.

3-1(j) Group 9: Sunset. A concluding piece of atmosphere music. One girl with a carefully chosen series of chime bars plays a fast-moving pattern which begins hesitatingly and then, as it settles to a steady pace, seems to gyrate, encircling the note F sharp:

MS Example 3-1(j)

The chime bars are accompanied throughout by a shaken tambourine and a drone G sustained on descant recorders.

The whole thing is strongly reminiscent of Indian music: the chime bars' raga unfolding over a drone; the tambourine's rhythmic shaking taking the place of the tabla.

The piece is performed twice. In the first version it ends with a fortissimo cymbal clash which seemed, at the time, very inappropriate. Probably the group, knowing this music was to be the end of The Battle of the Stags, felt that some definite conclusion was needed. They might have been content to allow the music to go out into the sunset, fading with the gyrations of the chime bar sounds. In the discussion that followed this first performance the players were very reluctant to dispense with the cymbals even though other groups were critical of the sound - someone said the cymbal clash "sounded as though the cymbals had been dropped on the floor accidentally". In the end they were prepared to reduce the volume of the cymbal clash, as the second recording shows.

When all the music was recorded we divided the whole group of seventy pupils into two sub-groups with the intention of discussing dramatic movement for The Battle of the Stags. The groups were far too large for anything very productive and the hall, laid out as it was with rows of chairs, was not the easiest place in which to work. Nevertheless, some parts of the story were discussed, principally the fight itself and the movements of the two animals. This was to be followed up by the drama and art teachers, but sadly nothing ever came of it. The music

certainly seemed very promising but the organisation of the project as a whole proved too difficult, even in a school where inter-disciplinary activities were declared to be basic.

Looking at the music we have from this project it is not difficult to find in the examples aspects which represent advances on what we might expect from younger pupils. For example, the control of instruments is potentially greater - as in the trombone playing of Example 3-1(g). Reasoning is applied to the invention and use of musical material such as the chime bar series in Example 3-1(j): the girl who played this passage was able to describe exactly how the music had been worked out. Where there are melodies they grow organically (Examples 3-1(b)(ii) and 3-1(f)). Had we been able to take the project further there would have been scope for extensive development of the musical potential. There was a heartening seriousness of approach to the work at an age when so often pupils shy away from school musical activities.

GROUP 7 - A small class of thirteen-year old boys and girls at an independent progressive school in Yorkshire. There is a grammar school orientated curriculum but considerable emphasis is placed on the arts as a vehicle for the expression of personality. A drama course runs throughout the school and is based on broad principles of mime, improvisation and modern educational dance. Observers

have commented on the school's "air of controlled freedom" and the headmaster has said of this freedom and his pupils, "They don't do what they like, they like what they do". Lessons are not voluntary. The organisation and time-tabling are there but a very serious attempt is made to get rid of the oppressive restrictions and limitations that hamper the growth of personality and independent resourcefulness.

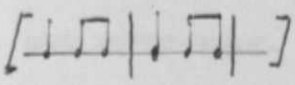
At the time when the recordings which follow were made the school had not long appointed a new music teacher - a young man who was keen to interest his pupils in experimental approaches to music. Unfortunately it was not possible to carry these experiments through in any sustained way so that developments could be observed. Nevertheless, rudimentary as they were, the attempts to make music with scrap materials were interesting. The fact that they were able to happen at all is due in large measure to the atmosphere of curiosity and discovery which is characteristic of the school.

I had some preliminary discussions with the music teacher early in December 1966. We drew up plans for work with one class in particular. This work was carried out at intervals during the remaining part of that term and the first half of the Spring term 1967. The recordings were made in one session on the afternoon of 10 February 1967.

The children had worked on their pieces in groups and it was interesting to see the varying degrees of seriousness

with which the tasks had been tackled. There seemed to be little need to associate what was done with other music heard and there was a general willingness to explore the possibilities of musical organisation with the sounds from the scrap material collected. Not all the groups were equally successful, some because they could not lose themselves sufficiently in the task and could not treat it with sufficient seriousness.

The sounds were produced from oil-cans, pieces of metal, bottles, and scraps of wood. Some groups used conventional musical instruments such as a guitar, a gong, a violin, and a piano. By and large the more imaginative music came from those groups who used scrap materials. Some of the pieces of music had literary associations. Others took purely musical considerations as their starting points.

3-2 Snow Music. This is an atmospheric piece beginning with quiet rhythmic scraping (treading in snow?). A bell is struck and a pipe wails thinly. With quiet drumming  in the background, the bell strikes again. There are some strange 'flapping' sounds, the drumming stops and in the silence we hear the 'treading' and the bell once more. The piece ends with four strokes of a piece of wood on the floor.

3-3 Storm. Many different sounds have been found for this piece. In design it is a controlled and very gradual crescendo, the storm building up from nothing. But the

"storm" programme is no more than a peg on which to hang this sound-construction. The performers are caught up in the total effect of the sounds they are producing. They begin with a stick scraped around a metal bowl, some random strokes on various solid metal objects and a high pitched whistle. Other sounds, mostly metallic, are brought in and the whole ensemble immerse themselves in a weird cacophony in which some fierce 'primitive' drumming on oil cans is very prominent and impressive. At first the combination of sounds suggests a fantastic and irrational machine, but as the climax is reached and the drumming comes to the fore, a sinister ritual quality emerges. After a brief lull (in the storm?) the 'ritual dance' returns more forcefully than ever. Again the players pause. This time there seems to be a hint of an even darker future, which indeed appears in the final section where the 'storm' is all-consuming in its savagery.

3-4 A short passage from an improvisation for guitar and water-gong. The guitar's highest string is plucked and followed through in a glissando the length of the fingerboard. Then the gong is struck and lowered into a bath of water while it is still sounding. The co-relation of these sounds is quite beautiful and the two players build up a pattern, alternating guitar and gong, the guitar player working across the strings and making an upward glissando on the first, a downward glissando on the nest, upward on the third, downward on the fourth, and so on.

3-5 Another 'primitive' piece, lasting about four minutes in the original performance (the tape-recording was poor in places and for the purpose of this example has been cut slightly). The instruments used are pieces of scrap metal and rubber hose-pipe, a series of milk bottles tuned with different levels of water, and an oil-can 'drum'. The drum maintains a steady pulse throughout almost the entire piece, its ominous thud giving a 'tribal dance' quality to the music (c.f. Example 3-3). The hose-pipe 'horns' bellow their animal calls above the steady tread of the drum beat, while at intervals the bottles (struck with a metal stick) jangle pentatonic 'breaks' in free rhythm patterns across the beat. The general direction and shape of the music has obviously been thought out in some detail but these 'breaks' on the bottles have an improvisatory quality. Nine bottles were tuned in what was virtually the scale of G flat major plus an A natural (MS Example 3-5(a)). The higher tones are pitched quite clearly but the lowest three are indistinct with harmonics which seem to produce micro-tones. From this mode the player selects a pentatonic scale (MS Example 3-5(b)) on which he improvises:

MS Examples 3-5(c) and 3-5(d)

Just occasionally he draws on other notes from the complete mode, as for example in his opening phrase (MS Example 3-5(e)) and near the end (MS Example 3-5(f).

From time to time the flow of the music is interrupted by a rattle and by a struck wire instrument which, perhaps because of the music we have heard on the bottles, seems to hover around the minor third E flat - G flat with pentatonic implications:

MS Example 3-5(g)

The piece has a definitely 'magic' effect and a ritual atmosphere achieved principally by carefully maintaining variants of the very simple musical material throughout the relatively long period of four minutes. The players appear to be musically quite content with the material they have and they successfully avoid the pressure, which so many people feel when improvising, to invent new material all the time.

3-6 This piece, which incidentally has something in common with the quartet for 12 tom-toms in Cage's She is Asleep and with the Danse Sacrale in Stravinsky's The Rite of Spring, sets out to exploit rhythmic patterns played on oil-can 'drums' and tea-chest 'bass'. As in The Rite of Spring, rhythm becomes the major structural factor. The players here make their opening rhythmic cell the motivation of the whole piece. Unfortunately, although they begin well, they lose coherence as they go on. They lack what the players in the previous piece (Example 3-5) have so strongly: the ability to sustain their original material.

The drums begin with a Stravinskian urgency (MS Example 3-6). After three repetitions of the rhythmic cell they are joined in unison by the 'bass'. The pace quickens and, with a metal sheet (flapped like a theatrical 'thunder-sheet') and a bottle used as a rattle, the ensemble weaves fast-moving patterns derived from the opening. The music quietens and, after a pause, a new section begins. This is less well integrated than the first section. A piece of hard wood is struck loudly and a pane of glass is systematically smashed. In the background we can hear, from time to time, the tea-chest bass player trying to recall the original pattern. Over this, random percussion noises - including the toppling of a huge pile of chairs - 'happen'. Somewhat half-heartedly, one feels, a violin is introduced, played tentatively on open strings. Certainly its use is nearer that of a percussion instrument than a melodic one, but there still seems to be very little point in the use the player makes of it. The drums return in wild gyrations and the glass is broken again fiercely. The piece tails off badly without a real sense of conclusion. There have been any number of excellent ideas in it but none has been allowed to cohere.

The experimental work with this class lasted only a short while and the music recorded on 10 February 1967 was not followed up in any way. Nevertheless, the accounts above are possibly of interest because the music produced was quite unlike anything produced in the other schools

visited. This must surely be due in some measure to the ethos of the school which is inevitably reflected in the pupils' work. We have already noted that the ways in which these children approached the business of making music varied a great deal. In fact, some of the attempts were so completely unsuccessful that it has been impossible to describe them. In other schools we have seen methods of working that have produced a certain degree of uniformity in the results however simple the results were. The variety in the work of the class described here is probably due to the much freer approach - but there are correspondingly wider horizons. At least it is possible to allow for the complete failure of a project. In a school organised on more conventional lines, where a background 'standard' of attainment exists against which all pupils are measured, it is not easy to accept that experimental music should indeed be experimental - that is, a procedure the outcome of which is unknown. The experiments made by this group were tentative but they opened up many possibilities for further exploration, from the primitive musics that lie behind so much twentieth century music to the work of Cage, Cardew, Berio and others. Even so, it was unfortunately not possible to take the work any further than what has been recorded above.

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On the whole the work from the Secondary schools visited was disappointing. The potential for creative music-making

was often considerable. Teachers and head-teachers would talk enthusiastically about the possibilities, especially in relation to inter-disciplinary working. But inevitably, it seemed, the machinery of Secondary school organisation was against it. Even in those schools where we were able to make a start with the work, it was never possible to develop the activity fully.

Far too few Secondary music teachers are themselves active as creative musicians. This may be because their training has placed emphasis on performance skills and the belief that there is more academic substance in writing about music historically than there could ever be in making one's own music. Whatever the reasons, the majority of teachers have very little idea of how to proceed in helping children to explore sounds creatively and to make music. Many of the problems could be overcome if music teachers were able to work alongside Art/Craft teachers or teachers of English and drama, but co-operation of this kind is very rarely possible under the present organisation of the Secondary curriculum. When a liason is made possible teachers are likely to find this such an unusual working situation that they are inhibited and unable to do anything really productive. They quickly find problems and retreat to the safety of the kind of class teaching and lesson content they are used to.

The organisation produces teachers to fit and they in turn maintain the organisation. Some hope of breaking out

of the cycle may lie in the proposals for re-organisation into First School, Middle School and High School which are already becoming a reality in some areas. There is hope too in the current re-appraisal of teacher training courses. But a surer way towards renewal is probably through the influence of new schools, set up with carefully selected teams of teachers to staff them, and with head-teachers who are determined to deal with the problems of the curriculum at root. Schools like this can make a reputation that will, in the end, have far-reaching effects on Secondary education as a whole, for educational spear-heads are usually more effective when they come from the schools themselves. The unconverted tend to look on the contributions of the Colleges and University Departments of Education as idealistic policies to be regarded with suspicion.

Nevertheless, Colleges of Education have a duty to look towards the future and to experiment with teaching method and curriculum organisation. The remaining examples in this chapter are taken from the work of students in training for teaching. Only a few of those represented were in any sense musicians. The majority were general course students, or students specializing in subjects other than music, with little or no background of music education from their schools. They had all enrolled for various combined arts projects in liberal studies courses or 'curriculum' courses. Most had not long since left

school. Their attempts at music-making may, therefore, offer some indication of the kind of projects which could be undertaken by pupils in the upper forms of Secondary schools.

GROUP 8 - Music made by students who were members of a Physical Education 'Wing' at a general College of Education. All the music grew from work done in enrichment courses and combined arts projects outside the students' main course.

3-7 Music for Cymbals. This piece was the outcome of a group improvisation by four players. The improvisation was weighed up carefully section by section until the shape and direction of the whole piece was agreed on and 'fixed'. The group had four cymbals of different pitches which they played with a variety of sticks and with bows. Two of the cymbals were suspended; two were hand-held. The plan of the piece is simple: there is a gradual increase in volume and activity, followed by a gradual decrease with a consequent relaxing of the tension.

The music begins with two gentle bowed notes on one of the suspended cymbals. The bow produces soft, high harmonics which are allowed to die away almost to nothing before we hear a few very soft taps with the wire brush on one of the hand-held cymbals. After a silence this section is repeated, slightly louder. In the repetition greater force is used on the bow and the note produced is allowed longer to vibrate before we hear the brushed cymbal.

A pause, and the cymbal is bowed again, this time even more strongly than before. The bow stroke ends with the heel of the bow striking the under edge of the cymbal. A hand-cymbal is then struck with the wire brush in a series of fast strokes increasing all the time in volume and speed. At the climax of this crescendo the other suspended cymbal (which has a deep note) is struck once with a soft stick. As this sound dies away, the fourth player draws a wooden stick around the edge of another cymbal several times, interspersed with soft strokes on the low-pitched cymbal. There is another pause - the silences in this piece are every bit as important as the sounds - and then the low cymbal is bowed very loudly while the other suspended cymbal is rolled with soft sticks in a crescendo from very quiet to very loud. The two other players join in and three cymbals are rolled in a series of crescendos ad lib., the sound of one piling on top of another. Throughout this passage the low-pitched suspended cymbal is played very loudly with the bow.

The activity stops and the huge wave of vibrations is allowed to die through several seconds, to be followed by a quiet but urgent little pattern of repeated short notes played on one cymbal with the wire brush. The pattern ends with the player drawing the brush very gently over the surface of the cymbal. This leads to the final sound, played almost inaudibly with a soft stick on the second suspended cymbal.

The sounds and the periods of stillness are controlled to a remarkable degree, considering that the piece is not

written down (the MS Example given below has been notated from the recording and is given here merely for reference). What we hear is a worked-over and remembered improvisation but it is clear from the recorded performance - in which the total sound-pattern is heard twice over - that an enormous amount of care has gone into the working. The content has been refined to such an extent that the result is effective music, every bit as much a composition as a notated work would be.

MS Example 3-7

3-8 A Piece for Percussion by Catherine M. Alexander and C. Leslie Gregory. This is the piece referred to on page 2 of the first Introduction. Neither of the students had received very much in the way of formal musical education. Now they were taking part in an intensive weekend course of creative activities that began with a visit to the sea-shore to watch the sunrise. It was suggested to the whole group of about thirty students that they should explore possibilities for artistic expression in various materials including musical sounds. Several students in the group made music. Leslie and Catherine began by exploring a vast array of musical instruments in an attempt to express some feelings about the sea and the dawn. Gradually they rejected instruments until they were left with two timpani, a bass drum, some cymbals, and the plucked and stroked strings of a grand piano. Eventually the cymbals

too were rejected. By this time the improvisation was becoming firmly ordered. The original impressionistic idea of a seascape was abandoned as the composers found themselves more and more interested in the abstract qualities of their music.

They worked at the music for a whole day with tremendous concentration. They were told about Henry Cowell's piano music and about Stockhausen's piece for percussion, Zyklus. They listened to recordings of Cowell and looked at the Stockhausen score. It was suggested that they should find a way of writing their music down and that Stockhausen's methods might provide a lead. The next two days were spent refining the improvised music and evolving a notation. One of the students had, at some time in the past, learned a very little about traditional notation. The need to use that knowledge now made it possible for her to learn quickly what was necessary for this composition. Traditional notation is used in those passages where exact pitch must be defined. The rest of the notation is graphic, evolved by Leslie and Catherine for this work. They were able to complete the writing down of this piece in the course of the weekend when it was made. Later they made a more careful copy of the score. This is reproduced below (MS Example 3-8). It is preceded by an explanatory note written by the students.

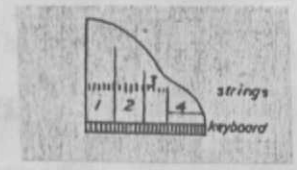
A Piece for Percussion - Composers' Introduction.

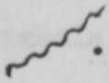
"Stimulated primarily by external naturalistic forces, this piece of music came into being as an extended fraction of

the original idea. Our major concern was with sound rather than rhythm, and we attempted to use every facet of the instruments at our command - namely, the piano, timpani and the bass drum.

After listening to a recording of Henry Cowell and looking at part of the score of Stockhausen's Zyklus, we were prompted to experieent with the different surfaces of the piano. We had listened to Cowell playing the strings of an open piano lengthways and we found that the most pleasing sound for our purpose was produced by plucking and strumming across the strings.

Leslie kept the sustaining pedal depressed throughout the piece and produced most of the piano sound by making stroking movements with the finger tips across each string area. This is shown in the score by the symbol ✳ . We numbered each area of the piano thus:

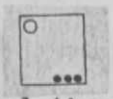


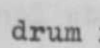
When individual notes were played, the first finger of the right hand was used to pluck the appropriate string. The symbol used for this was ∓ . Usually the strings were stroked from left to right and the sound allowed to reverberate -  . To produce a sharper, more definite sound, the strings were plucked in quick succession from right to left -  .

We experimented with different use of percussion too: bowing the cymbals, using a rasp against the metal side

of the drum and making whipping motions in the air with the metal brush, producing high-pitch sound vibrations. Yet after improvising with this variety of instruments we found that we had produced a series of unconnected and unassociated sounds, and in order to make these at all meaningful we had to select and prune.

We reduced the piano playing to vertical string-strokes and plucks (see above) and made a more conventional use of the timpani and the bass drum. Occasionally, rather than strike the face of the drum, Catherine stroked it with the drum stick, producing a quiet swishing sound -  ; and to make a sharp explosive noise she depressed the drum skin silently with her fingers and then released them suddenly with a sharp upward gesture -  .

We have shown which drum is struck by the position vertically of the circle in the box, and the time the drum is struck by the horizontal position of the circle. The circle which is filled in - ● - means that a muffled drum stick is used, therefore  means that first the small timpani is struck once and then the bass drum struck three times with the muffled drum stick. The size of the circle shows the volume of the drum beat.

Two other symbols need explaining:  the sound is allowed to fade away fully before playing is continued; and  - the drum is played very lightly until the next specified drum beat.

The speed of playing is slow and unhurried. We have not

attempted to specify a time factor, for we hope that within the framework of the score there is a certain amount of freedom to explore the relationship between the sounds of piano string and drum, and produce, as we tried to do, a balance between the ethereal nebulous quality of the string playing and the menacing build-up of the drum beat: the instruments should complement one another rather than contrast."

MS Example 3-8

3-9 A piece for 'prepared' piano. This grew out of an improvisation for which the student had been instructed to prepare any four notes on the piano and to explore the possibilities of these sounds, eventually choosing what she considered to be the best ideas and using them to make a continuous piece of music which could be remembered and repeated.

The four notes were prepared thus:

MS Example 3-9(a)

The small coin produced an attractive vibration between itself and the string. This became a feature of the music as can be seen below: there is a tendency to dwell on the B flat wherever it occurs, allowing the vibrations to die before proceeding. The B flat also becomes the cardinal note in the final chordal passage. The piece was performed with great sensitivity, the dynamics and the rhythmic variety all carefully gauged to create moments of tension and relaxation. The limitation of the four notes naturally gives

the piece a unity, added to which there is a tendency for the notes to be used in a cycle, that is retaining the original order.

MS Example 3-9(b)

3-10 Another individual composition for piano. The group had been looking at the ways in which a composer's imagination may be stimulated by the instruments themselves. Stravinsky, for example, often composes at the piano because he believes it is better to compose in direct contact with the physical medium of sound than to work in the abstract medium of one's imagination.[6] In general Stravinsky may use the piano to translate his thoughts immediately into sound but there have also been occasions when the thoughts themselves arose and took shape as a result of the mechanical arrangement of the instrument. The Petrushka motif of two close-knit arpeggios may have been suggested by the arrangement of the black and white keys of the piano:

MS Example 3-10(a)

In his Chronicle of My Life Stravinsky writes about the composition of Piano-Rag Music (1919) and tells how he was fascinated by the way in which various sections were the result of the fingers' dictation.[7] "Fingers are not to be despised," he says, "they are great inspirers, and, in contact with a musical instrument, often give birth to subconscious ideas which might otherwise never come to life."

The Petrushka motif provided the group with a starting point for their own explorations. Some of this was at a

very humble level: most of the students involved had only a rudimentary knowledge of music. Some began simply by putting their hands on the keys and playing notes in the pattern that fell naturally under the fingers, repeating this at different points on the keyboard. Others started with 'black-note' patterns and went on from there to find other patterns in the arrangement of the keys.

Attention was drawn to the way in which music will take shape if we can remember ideas we have discovered and repeat them exactly or slightly changed at different pitches. Because music is a time art this repetition will not necessarily be dull, in fact it is one of the simplest means a composer has of making his music 'go on'.

After a while the group were shown (at the keyboard: not in notation) some simple pattern ideas and encouraged to play with these, extending them into short piano pieces. For example, we can put our fingers on the notes C, E, and G. They fit easily under one hand. We can play them separately in descending order - G E C, then shift the hand up one note and play the same shape on the notes A F D, shift one note up again, and so on, repeating the simple pattern of three notes higher and higher. This could make reasonably interesting musical material in itself. We could try making it a little more interesting by using the left hand at the same time. Returning to the original notes, G E C, as the fifth finger strikes the G play a C sharp with the left hand. We could then make another rising pattern as before but this time following the right hand pattern with a series of black notes, thus:

MS Example 3-10(b)

The group were encouraged to experiment with this pattern, repeating it at different points of the keyboard, high and low. There were also the possibilities of playing it softly or loudly or at different speeds, or of starting the pattern at different points and leaping over gaps, for example:

MS Example 3-10(c)

Then, it would be possible to rearrange the placing of the left-hand note in its relation to the right-hand notes. For example, instead of striking the left-hand black note with the first note of the right-hand pattern, the black note could be played first by itself, hard and short, and followed quickly with the three notes in the right-hand:

MS Example 3-10(d)

After some group discussion and experiment on the lines described above, the group split up to work at individual pieces based on the ideas discovered. The example below is of one of the pieces made on that occasion. The relationship with the experimental work is clear but there are also developments. The style has been used to produce an aggressive, almost violent, piece. This is particularly noticeable in the forceful rhythms at those points where the triadic note-groups are sounded as staccato chords.

MS Example 3-10(e)

GROUP 9 - Music made by groups of general course students at a College of Education. At the time they were engaged on a one-year introductory course in which inter-disciplinary

working, especially in the arts subjects, was of first importance. It was the aim of the introductory course to remove subject barriers and to demonstrate the interdependence of all branches of knowledge. With this aim in mind the course was organised so that the College staff taught in teams for quite a lot of the time. The work of each team was planned around topics that could be explored in several different ways, separately and in combination. Work on a topic in art, for example, would frequently lead on to sessions in which the group explored the same ideas in sound or dance.

3-11 Music which developed from some work on natural patterns. The class had been sent out to choose natural objects which they found attractive visually - leaves, pieces of wood, stones, and so on. They had copied the patterns from the surface of the objects, taking care to choose appropriate materials: texture of paper, charcoal, paint, ball-point pen, chalk, or whatever. The patterns had then been developed on large sheets of paper, working the shapes all over the paper, learning to make the ideas 'go on'.

The completed pieces of art work had been discussed and this had led to experiment with sound patterns based on the different qualities observed in the visual patterns. Ideas about timbre, rhythm patterns, speed and duration had all been drawn from the lines and shapes on the paper. From there

the students had worked in small groups to produce definite pieces of music, as complete in themselves as the visual patterns had been. The whole exercise was a study in composition - learning to select the kind of ideas that could fruitfully be developed, rejecting those that would detract from the wholeness of the final work. At the point where the work with sounds had begun the students had been urged to see what they were doing not as a translation of something seen into something heard but rather as a following through of ideas which they had begun to work on visually and were now extending into musical terms.

Later some groups followed a similar course but started by feeling the patterns on objects rather than observing them. The music in Example 3-11 below was evolved by three students working from a pattern drawn by one of the group. The pattern arose from the student's feeling the surfaces of a fungus. The shapes in chalk and charcoal are clearly influenced by the smooth rounded top and the furrowed underside of the fungus.

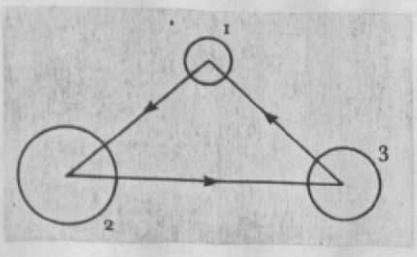
The pattern was used as a 'score', its various sections and ideas translated in a musical continuity. Although this was not strictly the procedure we had advocated, the result is musically satisfying. The hard furrowed shapes become a sharp rhythmic ostinato, alternating foor-taps with the striking of a section of bamboo. The tambourine trills and the vocal lines grow out of the ostinato just as the sweeping curves of the original pattern are extensions of the

zig-zag lines. In fact, the extent to which the original drawing could be regarded as an adequate 'score' of the music is made clear by the transcription below, made from the recording. Here the simplest way of showing the voice sounds was in graphic form, not all that far removed from the shapes in the pattern from which the students played. The guitar music is shown in a similar way. These sounds were made by tuning the two outside strings down as low as possible and, at each plucking of the string, turning the tuning peg with the left hand to tighten the string and quickly release it again. This gives the effect of four short upward glissandi and a fifth, longer, up-and-down glissando. This is heard first on the lowest string, an idea derived from the dark charcoal loops of the pattern, then on the highest string - an interpretation of the series of parallel white chalk loops (lighter = higher).

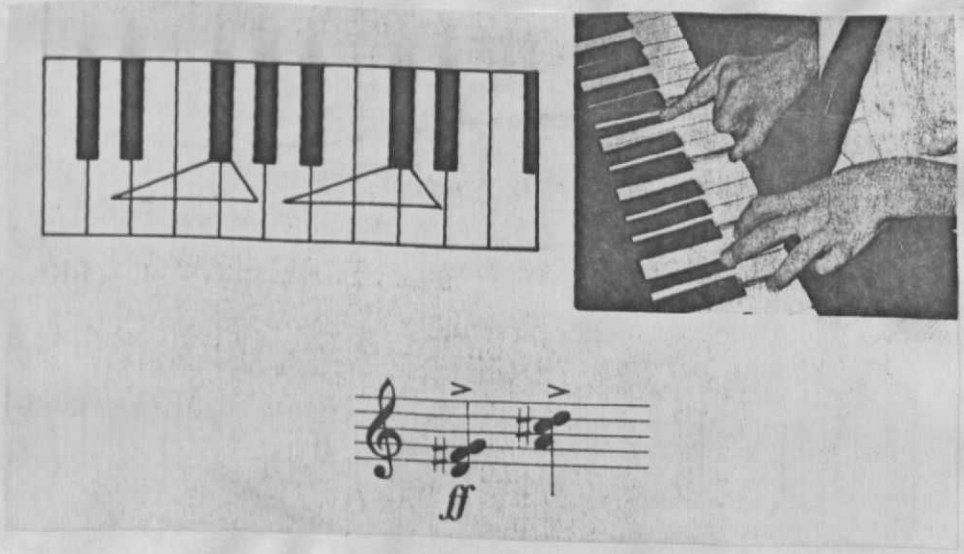
A repetition of the high guitar sounds is followed by more vocal 'loop and curve' sounds, this time to the syllable "d'lan" ("...the noise the children make in their games of cowboys..."). There is no slackening of tempo and the piece ends abruptly just as the visual pattern does. Simple as it is, there is nevertheless musical organisation of the sounds; an organisation that was only possible for the group by way of the visual elements which prompted not only movement and continuity but also timbre.

MS Example 3-11

3-12 Another group composition arising from a response to shapes. It was part of a project on Mexico. Some photographic slides were to be projected showing patterns taken from ancient Mexican stone carvings. The group responsible decided they wanted to accompany these slides with some music. They made their own piece based on the elaborate zig-zig patterns. The patterns suggested an arrangement of three drums - two timpani and a side-drum which would be used throughout in a 'triangle' order:



A 'triangle' hand-shape on the keyboard produced some interesting jagged-sounding chords:



Zig-zag glissando patterns were added on xylophone and rasp with a repeating pattern on two skulls and a triangle. After a mysterious opening section (not shown in

the example) composed of vocal hisses and a slow triadic pattern on a chordal dulcimer, a steady movement begins on the drums. One by one the other instruments are added as the piece builds up into a ritual-like dance of considerable intensity:

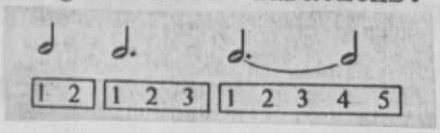
MS Example 3-12

3-13 Music for four groups of chime-bars based on a pattern of proportional rhythms. The group had been involved with a project on proportion. This had touched on the work of Le Corbusier in architecture, the Fibonacci Sequence observable in natural forms such as pine cones, and the applications of these principles, expressed in the form of the Golden Section, in the music of Bela Bartok.[8] Finally the group had been told about isorhythmic patterns in medieval music and about proportional rhythms as a basis of Indian classical music. Now they set out to evolve a group composition using some of these ideas.

They began by dividing a selection of chime bars between them in more or less random fashion (though it will be seen that players 1 and 2 took mostly black notes while players 3 and 4 restricted themselves to white notes). The division was not in equal numbers: players 1 and 4 had six bars each, player 2 had five, and player 3 had four.

With the limitations of their note groups set, each player made a melodic pattern in the proportional rhythm 2+3+5, the

2, 3 and 5 being taken as durations:



Player 1 divided the note-group she had chosen into two sub-groups of three notes each and made a two-bar melody which repeats throughout the piece. Player 2 invented two one-bar motifs but the order of their appearance is apparently more or less random (AAAA, BABB, AB). Player 3 tried to vary as much as possible the order of the notes in her group, while player 4 appears to have been thinking, like player 2 , in one-bar phrases (making a pattern: AB,AB, CD, AB,AB).

When all the patterns were established the players put them together and decided as a group how they would use the material and what length the finished piece should be. It must be emphasised that all this was done by working from the instruments and the sounds. Nothing was written down at the time of making the piece. The completed piece was remembered and subsequently notated by one or two members of the group.

MS Example 3-13

This concludes the examples of students' work. The strong stimulus for making music which links with other areas provided may well indicate an approach to music in the Secondary school that could be used to advantage. If areas of knowledge really are interdependent then, surely, this is how they should appear in the school curriculum, only to be divided at a later stage for higher study as necessary?

4 - THE HEARING EAR AND THE INWARD EXPERIENCE

In the earlier chapters we looked at a number of different attempts to help children create music. The survey is not comprehensive. It was never intended to be so. None of the pieces of work described was the outcome of anything like a controlled experiment. Nevertheless, the projects were 'experimental' in the sense that no-one knew what might happen once the work was begun. It could be successful or it could fail. We should certainly be prepared for failure even though it is not an easy thing to accept in the classroom. Anyone who undertakes any kind of creative work knows that his first attempts to realise an idea may not work. He accepts that it may be necessary to try several different approaches before an answer is found. The first thing that was required of teacher and class in any of the projects described was a willingness to <u>try</u>, accepting that what was attempted might not be successful in the first instance. In fact many more pieces were attempted than have been recorded here. Some were failures. Others have been omitted because they were so similar to pieces already included that to describe them in detail would add little to what had been said beyond the recognition that a common stimulus will often produce the same reaction from different people.

There could be no rules or guide lines to help teachers and children begin this work: just the suggestion that

they should make a start and be guided by their own reactions to the sounds. If a 'method' was necessary then it would be found within the enthusiasms the teachers and their pupils. The music-making could then evolve from ways of working with which the groups were already familiar, so that it became a natural extension of their other work. The details of approach varied from group to group but this much they had in common: all began from where they - the teachers and pupils - were. Confidence is the first thing.

How can we believe that it is possible for us to make our own music? The encouragement of someone who has gone that way before will help a lot but only some kind of inward experience of the music we have made will finally convince us. So the first steps must be taken in the dark and in the hope that we shall arrive. Even if our efforts are related to something in which we already have confidence - words, actions or whatever - our first attempts to make music will almost inevitably be unpolished and possibly disappointing. The teacher's role at this stage is vital. He must resist the temptation to impose his own solutions or to 'show the class the kind of thing that is possible'. At the same time he must judge carefully the right moment to support with encouragement those musical ideas which his own sensitivity and creative experience tell him will be profitable lines of development. He must open children's ears to musical possibilities by leading through experiences rather than by dogmatic statement.

If children are to create music they must learn to listen.

But there must be something to listen to, so they have to begin by making sounds. As 'the hearing ear' develops acuteness, those who are making the music should begin to experience the music inwardly. This in itself will increase their perception of sounds and sound patterns. So the process, once begun, furthers itself just as a grammar is formulated in retrospect from a language built up by use and necessity, but once formulated it extends the scope of the language to make possible a more powerful use of words. Ultimately it is what an individual can do with the language that matters. To work at creative projects in groups is a step towards this end, though to be effective it must involve some degree of inward experience of the music for each child.

In the accounts recorded above, work was generally carried out by small groups of children. The separate members of a group might contribute ideas or even whole sections to the composition, but the overall concept of a piece was usually the result of a group discussion. When a piece was finished, how much value would there be in it for any one member of the group? Should not the making of music, like poetry, be an individual effort?

In Children's Writing David Holbrook speaks of the importance of developing a child's "perception and capacity to explore and organise experience, from inward sources, symbolically." There may be an outward stimulus to which

all the pupils in a group are exposed, "but the stimulus must be left to provoke a unique response from each child (since each child will bring to it a different capacity for perception, and a different need to symbolise)."[1] Holbrook criticises an approach which "seeks to force children into the same pattern" because it will produce insincere writing. Where children are invited, as a group, to contribute words and ideas suggested by a stimulus the result will be a "sameness of 'vocabulary'...marking a failure of engagement with 'felt' meaning."[1]

Surely this same criticism could be applied to any music which has its origins in group discussion and group improvisation? Certainly in the schools mentioned above we would have hoped to find children using music for the "pursuit of deeply felt themes" and in one or two of the projects described it may be possible to see such a thing beginning. For example, the 'loneliness' motto in The Lonely Tree; the 'still-centre' music of the Water Trough; the pervading sadness of the 'Ashes' music in Nero; and the incantatory magic of the piper's tune in The Pied Piper. Maybe the children responsible for these passages could have gone ahead with individual pieces of greater significance. The problem with music is that it must sound, and a child making music needs to be able to experiment 'out loud'. With the limitation of two hands, effects of any complexity are out of the question, even assuming they could be imagined in the first place and conceived indepen-

dently of sounding instruments. But it may be possible to 'conceive' such effects in retrospect. Sidney's remark about the piece called Playtime quoted on page 108 - "..playtime's just like it." - may reveal a sensitivity to the music now that it is complete, an understanding that could not show itself until the music was finished with all its parts put together. Sidney doesn't say "it (the music) is just like playtime" but "playtime's just like it". The music has become the reality because it has drawn Sidney's attention to the inward experience of playtime. That is the real thing, not the actions that clothe it. But all the components had to be put together before the revelation could occur. These components were the work of individual members of the group, although the stimulus for the piece was an experience they all had in common and the general conception of the music was the outcome of a group discussion and was in the first instance expressed in words. As musical ideas were contributed they were built into the pattern of the piece as the group had forseen it. It would probably be then, as the piece grew and the players began to grasp the effect of their own ensemble, that the success or failure of the piece, and perhaps its ultimate 'meaning', would be determined. So long as the group making the music is not too large there is perhaps some chance that this 'backwards conceiving' of what a piece is about can be a genuine inward experience for those taking part in its making.

Music is always a 're-creation' of sense impressions, the

sounds being symbols for ideas and experiences felt in some other way (or even realised in some more permanent form in another medium).* The musical symbols can only exist at the moment in which they are made to sound - the first experiments being the first 're-creation' of the idea. All subsequent experiments, modifications or performances of the same material are further symbolic re-creations of the idea. If the power of the symbols can only be fully realised at the moment of their re-creation in sound, then the power of a group production can be every bit as real as that of a composition conceived by one person. The group piece could mean just as much to those taking part in its performance. The 'meaning' of a piece of music or dance will often come over more strongly to those engaged in performing it than to those listening or watching. During the process of building up the work the meaning may be only dimly glimpsed. The power of the ideas will be evident but never so strikingly as in the moment of actual performance when the work comes to its full flowering. Then it is possible that individual players or dancers may have an inward experience of the whole work which they could not have otherwise felt. The way in which a choir or an orchestra will 'rise to the occasion' is well-known, especially to those who work with young people and amateurs. Is this 'rising' perhaps the result of insight given by the full impact of the 'real' performance?

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*Even when the music is 'about' the sounds themselves, the actual sounds are symbols of the idea of the sounds.

Beginning with group improvisations and compositions, a child's 'hearing ear' will develop and, spurred on by the experience, he may want to use the materials of music for more deeply personal creative exploration. But group activities in music-making will still have their own value, as relevant to creative projects as to the performance of other people's music.

Although the music discussed in the previous chapters was not produced as part of a systematic experiment, it is still possible to draw some conclusions from what was done. The summaries at the end of each group account have dealt in detail with the principal conclusions. It is perhaps sufficient here to emphasise two features of importance.

Firstly, the evidence that there would seem to be of development from 'primitive' beginnings, in particular from the 'natural' use of pentatonicism and of ostinato patterns. In this connection example 3-5 is especially interesting, not only from the viewpoint of the music made but also because of the instruments used. These include a 'musical bow', one of the most ancient forms of musical instrument.[2] It is played here, as in earliest times, by striking the string with a stick - a method that preceded plucking or bowing. Unconscious 'primitivism' of this kind seems often to appear when children are free of the kind of musical disciplines that characterize the more established classroom methods. And it appears inspite of the very sophisticated music which surrounds most of us today.

Many twentieth century musicians since Debussy have looked for a re-birth in pre-Renaissance and non-western musics. The spirit of a return to such sources may be more strongly evident than we sometimes suppose. Or perhaps, in a society trying to release itself from imposed authoritarian dogma, it is no longer necessary to hide our simple origins. Whatever the reason, children, left to explore sounds freely and to make music of their own, seem frequently to come, by experiment, upon resources that could be related to non-European music. One would imagine that they would easily understand what so many composers today are seeking.

This brings us to the second of our two points. When children write poetry they are engaging with the same human problems as adult writers - "seeking order and beauty within and discovering the reality of others... most children's creative work symbolises in one way or another the quest for integration of the identity, towards realism in dealings with the outer world."[3] This could be true also of children's creative work in music. Their attempts to control the materials of music are bound to be influenced by a multitude of factors such as those that influence their use of language. These influences will be the same ones that are felt by professional composers and which are evident in their work. Children will, therefore, profit by the enrichment of hearing other composers' music. Once they have made some creative attempts of their own, their perception will be deepened by contact with music related, by subject matter or technique, to the music they are themselves making.

From time to time in the preceding chapters we noted the similarity between a piece composed or improvised by children and the work of an established composer. Perhaps, as has already been suggested, positive efforts should be made in the classroom to relate music that can be heard on records to themes which are current in the children's work. In conclusion, let us look back over some of the examples of children's work comparing them, where appropriate, with music that might feature in such a process of 'matching'.

2-14 The 'movement music' might be compared with passages in Earle Brown's Available Forms 1 and 2. In the children's work the control exercised over the improvisation by the 'movement' ideas is not unlike the control of the improvisation in Available Forms. There, the performers, working from certain fixed details, 'improvise' the material into a 'form' by reacting to each other within a specified technique. Shifting patterns of light and shade, similar in effect to the patterns created in this example, may be found in Agenda by Bernard Rands. This work is also based on controlled improvisation. The opening of Boulez' Le Marteau sans Maître for flute, vibraphone, guitar and viola sounds as though it is improvised. It is, of course, very tightly controlled music, precisely notated. Nevertheless, music created by children along the lines of Example 2-14 could possibly provide a small link that would make a useful approach to the Boulez piece.

2-1 The Lonely Tree could be 'matched' with the opening section of Copland's Quiet City where trumpet, cor anglais and strings suggest the endlessness and emptiness of lonely streets. Some of the 'wasteland' passages in Vaughan Williams' Sinfonia Antartica might be useful, as would Holst's Egdon Heath with its lonely opening adagio and stormy middle section. The Holst also contains some truly desolate music at figure 8 where flutes play in 4ths. This could be compared with the 'loneliness' ideas in the children's piece:

MS Example 4-1

2-4 Any piece about birds might reasonably lead to Messiaen. Although it is concerned with bird-song rather than bird-movement, the famous 'dawn chorus' Épôde in Chronochromie could be used as an example of a substantial piece of music based on ideas drawn from sources very similar to those used by the children who made Birds Flying. Children might also find attractive sections of Oiseaux Exotiques or the 'jagged' bird-song motif in the third part of Et Expecto Resurrectionem Mortuorum.

2-5 Water Trough Music. The children found the stillness at the pool's centre of special interest and they tried to make 'still' music. Perhaps they would be ready, having made their own attempt, to approach some of the almost motionless third movement of John Cage's Quartet. The calm of Satie's three Gymnopédies might also begin to mean something to composers who had striven for a similar effect.

2-9 and 2-11 The composers of Playtime and A Summer's Day should certainly be introduced to the music of Charles Ives - perhaps Putnam's Camp and The Housatonic at Stockbridge from Three Places in New England, or Washington's Birthday and The Fourth of July. Ives' childhood recollections, expressed in so much of his music, would be appropriate in comparison with Playtime. Ives described his Fourth of July as "a boy's Fourth..." After a quiet beginning in which we can feel the suppressed excitement at the start of a holiday, the crowd grows and we are swept along with them as the bands play patriotic tunes from all sides. The excitement reaches a climax "...with the sky rocket over the church steeple, just after the annual explosion sets the Town Hall on fire." (Ives' own words).

A Summer's Day and Psalm 150 (Example 2-12(m)) draw together a number of different musical elements, a favourite technique with Ives. The children who composed Examples 2-11 and 2-12 might find their music had a lot in common with a piece like Putnam's Camp in which Ives remembers the interesting effect produced by military bands on the march. They approach from different directions perhaps, playing different tunes in different keys. They merge together with other sounds around to make a new whole, and the child in the midst of it all is caught up in it and becomes part of it.

2-10 Sea-Tower. The obvious parallel here is Debussy's

La Cathedrale Engloutie but we might also play recordings (or even give 'live' performances) of piano music by Henry Cowell. Cowell's Banshee makes use of gently stroked piano strings, and his Tyger has long passages of note-clusters. Both these devices would relate to the music of Sea Tower.

2-12(g) and 2-24(e) These two pieces for pipes could serve as useful introductions to quite a lot of medieval music, much of which could be performed by the teacher or arranged quite simply to be played by members of the class on recorders and tuned percussion.[4]

2-15 The children who made the 'Ashes' music would almost certainly appreciate the pathos of The Death of Ase in Grieg's Peer Gynt music.

2-17 As obvious as it is, a comparison of these Dances with the Ritual Fire Dance by Manuel de Falla, especially in its opening passage of wildly gyrating trilled Es and Fs, would surely be appropriate?

2-19 Soldiers' March. The composers might enjoy the march in Bizet's Carmen:

MS Example 4-2

2-26 Halloween. Following the composition of a piece like this we might listen to the final movement of the Fantastic Symphony of Berlioz. But the use of voices and word-sounds in Halloween could also lead us to Stockhausen's Gesange der Junglinge or Berio's Visage.

2-29(a) Once again, some of the icy 'wasteland' music from the Sinfonia Antartica of Vaughan Williams could usefully be heard to 'match' the children's exploration of related themes in their piece called Ice.

2-38 This should, perhaps, be followed by a performance of Cage's 4'33" for a pianist. In fact Cage's music was discussed with this Primary school group and they showed particular interest in the prepared piano sections of Amores, the ritualistic monotony of which they related to their own Silence piece.

3-6 As noted on page 218 above, there are some striking similarities between this piece and passages in Stravinsky's The Rite of Spring:

MS Example 4-3

The children who made this weird 'primitive' dance might also appreciate the opening section of She is Asleep by John Cage.

3-7 Music for Cymbals might lead us to explore some of the more unusual cymbal effects such as those that may be heard in, say, the Concerto for Orchestra by Roberto Gerhard. Among other things, he employs the cymbal played with a bow, an effect that can also be found in Schoenberg's Five Pieces for Orchestra Op. 16: in the final bars of the fourth piece is the instruction "Tremolo auf einem Beckenteller mit einem Violoncellbogen."

Bartók's orchestral music provides a number of examples

of different cymbal effects. The following are to be found in the Violin Concerto No. 2:

1. Cymbal struck "with blade of a penknife on the edge" (fig. 126). This is in a quiet, slow section of the last movement. The cymbal is exposed and therefore easily heard at this point.
2. A quiet roll "to be played with the thin end of a side drum stick on the dome of the cymbal", followed immediately by a single stroke "to be played with the thicker end of a side drum stick at the rim of the cymbal (*f*)" (fig. 386).
3. "Two cymbals trilled together": in the final five bars of the first movement (fig. 383). The cymbals are rolled together in a gentle crescendo while the solo violin trills on a low note.

In Bartók's Dance Suite there is an interesting direction to the cymbal player to "strike with the hand" (colla mano). This is in the third movement at fig. 31.

Results of work on an assignment such as the one that produced Music for Cymbals could usefully be followed-up by hearing the second movement of the Toccata for Percussion (1947) by Carlos Chávez. The composer exploits metallic instruments such as bells, cymbals, chimes and gongs - though there is also a xylophone. Stockhausen's virtuoso work for one percussionist, Zyklus, might also be of interest. The range of effects is wide. If we consider the cymbal effects alone there is quite a variety. There are two suspended cymbals and the player must "vary the striking point continually"; a hi-hat cymbal which can be struck with a

stick while it is closed, or struck with a stick while it is open, or struck on the dome while open. And, of course, the player has many different sticks - hard, soft and metal.

3-8 Piece for Percussion. As we noted above, the composers of this piece were introduced to Stockhausen's Zyklus and The Banshee by Henry Cowell.

3-9 Making music for prepared piano will inevitably lead us to look at works by John Cage. Amores and Sonatas and Interludes could be appropriate here. Children might also be interested in the relationship between the sounds of a prepared piano and the music of the Balinese gamalan orchestras.

3-10 Piano 'pattern' piece. Numerous examples will be found in the piano music of Bartók. Debussy's piano music is also a fruitful source. For example: Doctor Gradus Ad Parnassum (from the Children's Corner Suite); Jardins sous la Pluie (from Estampes); Feux d'artifice (from the second book of Preludes). If possible the pupils should see copies of the music so that the patterns can be examined and the hand-shapes discussed before the pieces are heard. But even if the printed music cannot usefully be studied, it would be profitable for pupils who have made 'pattern' pieces to hear the music on recordings. In addition to the Debussy and Bartok pieces we might listen to passages from Stravinsky's Petrushka. The famous motif of two superimposed arpeggios was in fact

used as a starting-point for discussions that lead to the work described on pages 230-232 above. The motif which appears on two clarinets at the start of the second part of the ballet score, was originally given to the piano in a Concert Piece for piano and orchestra. It was at the suggestion of Diaghilev that Stravinsky used music from his Concert Piece as a basis for the score of Petrushka.

3-12 Mexico. Music derived, as this piece was, from visual patterns could lead to an exploration of any amount of twentieth century music that is graphically notated. Most of these pieces allow the performer to be actively involved in taking decisions about the progress of the music. One way or another such music possibly demands more from the performer in the way of imaginative response to visual patterns than more conventionally notated music does. For example, Stockhausen's Zyklus, which in spite of its apparent complexity, the multitude of new symbols that must be learned, and the copious notes on interpretation provided by the composer, is really a vast abstract pattern. Indeed, the performer is left with an unusual degree of freedom. He can choose which parts of the pattern he will play, which way up to read the score, and on which page he will begin the performance. Musical material is printed in boxes, providing the player with stimulus for improvisation throughout the duration of the box (expressed by relation to a continuous 'time-line'). The whole is laid

out on large sheets of card, each page of which is a complete section. The performer may begin anywhere, proceeding through the pages in order and returning in a cycle to the place where he began. The character of Zyklus is essentially improvisatory, the player reacting section by section to the visual stimulus of the patterns as the performance progresses.

A 'graphic' composition of a different kind is Octet 61 for Jasper Johns by Cornelius Cardew. Here the composer provides calligraphic symbols, many of which are related to traditional notational symbols, together with notes to show how the score may be realised. Any number of instruments and players may be used but the performers must first prepare a detailed working out of the symbols Cardew offers on the 'score'. Performance cannot take place directly from the written page as it has left the composer. Reaction to the patterns and shapes must be considered and re-notated before the music is played. A study of the possibilities in Cardew's Octet would link very well with the kind of decisions that needed to be made when the group whose work is described on page 236 above set about deriving musical ideas from the visual patterns of Mexican sculpture.

Further pieces useful for 'matching' with Mexico could be found in the series Music for Young Players (Universal Edition), for example the Sound Patterns of Bernard Rands and Tetrahedron by Brian Dennis.

3-13 As has been suggested above, parallels could be found in medieval musical techniques and in the music of Béla Bartók. We should perhaps be careful to point out to our pupils that although organisation and the desire to make symmetrical patterns can be a great stimulus to composers, ingenuity will not by itself automatically make good music. If the organisation of the materials is too obvious, the chances are that the piece may have little else to recommend it. In the end all music stands or falls as music. It is the sound that moves us or excites our imagination, not the ingenuity of the composer, although we may indeed admire his skill. With this said, it would nevertheless be useful for us to examine as closely as we can the ways in which organisation and symmetry stimulate composers to produce music. The extent to which such examination is possible will depend on the pupils' capacity to study scores in detail for, as we have said, if the music is worthwhile its organisation will not obtrude: we shall have to look for it in the notation.

Although not based on proportional rhythms, Bartók's music is frequently planned on complex number patterns and would provide a good starting point for our exploration. Bartók seems to have been fascinated by the number series known as the Fibonacci Sequence in which each expression is the sum of the two preceding numbers. The pattern so formed is the numerical equivalent of the proportional principle we call The Golden Section or The Golden Mean.

Not only has this principle been used both consciously and unconsciously by artists and musicians since the dawn of civilisation, but it is to be found everywhere in nature; in things seen and in things heard. Not surprisingly in anything so fundamental, it has often been associated with magic and ritual forms, especially as expressed in the magic shapes of the pentagon and the five-pointed star. The same pattern is discernable in the most ancient forms of the pentatonic series as it evolved in the music of primitive peoples.* As so much primitive music is connected with ritual and magic it would not be unreasonable to suppose a link between Man's spiritual gropings and pentatonicism which is one of music's intrinsic laws.

In a fascinating and exhaustive study of the music of Béla Bartók, Ernő Lendvai[5] has shown that the order conveyed by these principles was as natural to Bartók in the formation of every detail of a composition as 4- and 8-bar periods were to Mozart. Lendvai demonstrates how, in the Sonata for Two Pianos and Percussion, every unit, from the whole work to the tiniest section, is divided structurally according to the Golden Mean. For example, the first movement is 443 bars long: 274 is the Golden Section of 443:**

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*If the sequence 2,3,5,8 is seen as a sequence of numbers of semitones, a melody pattern emerges: 2 semitones = major 2nd, 3 semitones=minor 3rd, 5 semitones=perfect 4th, 8 semitones= minor 6th. This same melody pattern is the basis of pentatonicism:

MS Example 4-4

**Golden Section = 1:0.618. Therefore, 443x0.618=274

the recapitulation, which Lendvai describes as "the centre of gravity of this movement", begins exactly at bar 274. There would seem to be quite substantial evidence to show that this kind of organisation came naturally to Bartók; that is, it was not so much a logical, reasoned process as an unconscious one. It occurs in so much of his music. Again, Ernő Lendvai demonstrates with an analysis of the first movement of the Music for Strings, Percussion and Celesta. The movement is 89 bars long. The dynamic climax is reached at bar 55 (55 is the Golden Section of 89):

MS Example 4-5

The two sections thus formed are themselves sub-divided by the Golden Section and events of importance occur at these points:

MS Example 4-6

All the numbers which emerge from this analysis are part of the Fibonacci Sequence: 2,3,8,13,21,34,55,89... Bartók's melodic construction is so often based on the most ancient traditions of Hungarian folk music which, in its use of the pentatonic formula, is linked to this numerical pattern so fundamental to nature's own ordering. In his article, Lendvai draws our attention to the logarithmic structure of the cochlea of the ear and suggests that this may account for the attraction which children and primitives find in the pattern of the whole tone and the falling minor third:

MS Example 4-7

From this pattern stems the pentatonic formula which, like the pentagon, is a closed form devoid of 'direction' and functional attraction of the kind we have become accustomed to in the tones of our major and minor scales. Bartók drew on the ancient sources saying that "only by going to the truly old can we create something truly new". Perhaps we should not be surprised at the untutored understanding children have of these ancient musical devices. The gateway to something "truly new" in classroom music-making could be the children's own 'primitive' gropings that at first seem to suggest that we, the teachers, should, temporarily at anyrate, turn aside from so much of what we have come to accept as essential to musical education.

NOTES

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5 see reference 8 in Notes for chapter 3 above.

THE PHOTOGRAPHS

1 Christmas Carol. Example 2-8, page 105.

2,3 and 4 York Children's Theatre Workshop, page 142 - exploring the instruments.

5,6,7 and 8 York Children's Theatre Workshop. Making the music for Flame Dances. Example 2-17, page 148

9,10 and 11 York Children's Theatre Workshop - Nero. Example 2-20. (9) The Emperor Nero, (10) Guards capture Christians, (11) The guards kill prisoners in Nero's presence.

12, 13,14 and 15 The Workshop. Example 2-25(a), page 159.

16,17 and 18 Halloween. Example 2-26, page 160.

19,20 and 21 Ice. Example 2-29(a) and (b), pages 165-6.

22 and 23 Easter Sequence. Example 2-30(a), The Entry into Jerusalem, pages 167-8.

24 Easter Sequence. Example 2-30(b)(i).

25 Easter Sequence. Example 2-30(b)(ii).

26,27,28,29 and 30 Easter Sequence. Example 2-30(b)(iii) - The Soldiers take Jesus in the Garden.

31 The Victory. Trombone fanfare - Example 3-1(g), page 211.

32 Bottles and 'Musical Bow' - Example 3-5, pages 217-18.

33,34,35,36 and 37 A Piece for Percussion. Example 3-8, pages 225-29.

38 and 39 Preparing a piano.

PHOTOGRAPHIC SLIDES

Numbers 1 to 9 show examples of musical activities in the Infant school. Numbers 10 to 19 and 23 to 25 are of work from Junior schools and show principally the children's own notation of their music. Numbers 20 to 22 are concerned with drama and music.

1 The Music Table: home-made glockenspiel and 'mini-chimes'.

2 The Music Table: Russell with the drum.

3 Jeanette playing quietly on chim bars (as in Example 1-8).

4 A 'spontaneous band' (Example 1-9).

5 Georgina playing on the mini-chimes (Example 1-13(c)).

6 The Harp (Example 1-12).

7 Monochord and bow (page 33)

8 Monochord and bow (the girl is 'stopping' the string with a small block of wood while the boy draws the bow across the string).

9 Monochord and bow.

10 The Lonely Tree (Example 2-1, pp.80-82).

11 Birds Flying (Example 2-4, pp.88-90).

12 Painting and writing about the water trough (p 91).

13 Water Trough Music (Example 2-5).

14 The Running Fox (Example 2-6, p. 97).

15 Christmas Carol (Example 2-8, p. 104)

16 Playtime (Example 2-9, p. 108 and pp. 111-112).

17 Sea Tower (Example 2-10).

18 A Summer's Day (Example 2-11, pp. 117-118).

19 Psalm 150 (Example 2-12).

20 Children's Theatre Workshop, York: preparing to make music for a play.

21 Children's Theatre Workshop, York: Flame Dance (Example 2-17(a), p. 148).

22 A mask made from natural materials. The mask is the full height of the child who is standing behind it.

23 Pit Children (Example 2-33, p. 180).

24 The opening music for Bumble (Example 2-35(a), p. 185).

25 The second piece in the Bumble suite (Example 2-35 (b), p. 185).

MUSIC EXAMPLES

The manuscript music examples, bound separately, consist mainly of transcriptions from tape-recordings of pupils' music. Examples of children's own notation of their music appear among the photographic slides.

The following examples have not been transcribed. They are included as tape-recordings only:

Examples 1-1 to 1-6
1-9 to 1-15
1-17(b) and (c) to 1-21
2-7
2-14
2-15(b)
2-17 (b), (c) and (d)
2-20 to 2-22
2-24 (a) and (b)
2-25(a) and (b)
2-27 to 2-30
2-31 to 2-35(a)
2-35(c) and (e)
2-36(a) to (e)
3-1(e) and (h)
3-2 to 3-4

RECORDED MUSIC EXAMPLES

The tapes contain recordings illustrating all the examples mentioned in the text with the exception of the following which are given as manuscript examples only:

Examples 2-8

2-12 (d), (g), (h), (j), (k) and (l)

3-9 to 3-11

3-13

4-1 to 4-7

Each example is preceded by an announcement of its number.

Reel 1 contains:

green leader (announced as 'Tape A')

Examples 1-1 to 2-12(m)

red leader (announced as 'Tape B')

Examples 2-12(m) (conclusion) to 2-32

Reel 2 contains:

green leader (announced as 'Tape C')

Examples 2-33 to 3-12