

Elektrodome Pilot Projects for Group Music-Making in Schools
with electronic music and multi-media technology, voices and other instruments
in live performance

No. 1

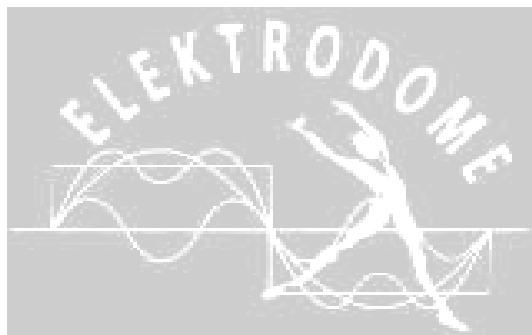
SEASONS and CYCLES

for Soundbeam, voices and instruments

Words and Music
by
Heather Wastie
© 2002

Devised and composed during workshops with
Class 4S, Leighswood School, Aldridge, Walsall,
and including lyrics and melodies by the children

Commissioned by
ELEKTRODOME



ELEKTRODOME (*Registered Charity No. 107 1068 – Company No. 424 6584*) was founded in 1995 by **Edward and Judith Williams** to explore the potential of electronic technology for expressive musical and multi-media performance, and to share the resulting discoveries with students of all ages and abilities. For further information about Elektrodome, its aims and activities, see the Elektrodome Website at

www.elektrodome.com

A further 6 Elektrodome commissions for Elektrodome Pilot Projects in mainstream schools – spread across the age ranges from Year 5 (primary) to Year10 or later - are planned for completion in 2003 and 2004. Further details from

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SOUNDBEAM, the electronic music technology used by the children of Class 4S in "Seasons and Cycles", enables movements in the beams 4 ultrasonic sensors together with the operation of 8 switches to contribute 12 simultaneous, independent channels of MIDI instructions to electronic musical instruments – samplers, sound modules and so on.

elektrodome

“Seasons and Cycles”

by

Heather Wastie

with

Class 4S, Leighswood School, **Broadmeadow, Aldridge, Walsall**

Friday, November 8th, 2002

“Seasons and Cycles” is the first of a projected series of **Elektrodome Pilot Projects for Group Music-Making in Schools** - using electronic music technology with voices and instruments in live performance – designed to offer teachers a new repertoire of pieces for classroom group music making.

It is the result of a commission – in June 2002 - to composer/poet **Heather Wastie** by the arts charity **Elektrodome**. Her brief was to devise and compose a piece of music or music theatre for development, rehearsal and performance by all 36 children of **Class 4S** at Leighswood School, under her direction, with the collaboration of their teachers, **Mrs Helena Smith** (*Class Teacher, Class 4S*) and Mrs **Kathleen Curd** (*Music Specialist at Leighswood School*). The Project had the enthusiastic support of Head Teacher, **Mrs Jan Taylor**, and of **Mike Parrott** (Group Manager for Arts and Development, Walsall Metropolitan Borough Council).

Preliminary Visit to Leighswood School, Summer Term 2002

At the end of June, Heather Wastie visited Leighswood School to meet (the future) Class 4S and their teachers, in order to explain the project, demonstrate Soundbeam – the movement-to-MIDI live performance equipment they would be using – and introduce them to sound samples.

She was able to discuss some of the possibilities for the new piece with them, and suggest how they might be able to contribute some of its components. Amongst the 36 8-9 year olds in the class, she found several recorder, flute and keyboard players, as well as a guitarist and a violinist to be taken into account in her composition.

At this meeting – and at all the subsequent workshops and the performance at Leighswood School - Heather had the technical support of Adrian Price – of The Soundbeam Project, to demonstrate Soundbeam and the other electronic music technology involved, and to help to iron out any technical problems. The Soundbeam Project were responsible for the cost of this, as well as for the loan of some of the equipment.

Devising the Outline

Between this meeting and the beginning of the Autumn term, Heather worked on an outline plan for the piece, which had begun to take shape in her mind as a cantata on the subject of the Seasons and the annual cycles which brought the months, weather and the activities associated with them round again every year. She wrote the lyrics and music of two songs with these ideas in mind.

During the first half of the Autumn Term 2002, Heather visited Leighswood School for 6 successive Monday afternoon (two period) workshop sessions.

The children learnt the songs, experimented with writing poems about the Seasons, including the ingenious tetractys form, which seems to have made a deep impression on many of them. They contributed ideas, words, sounds and images as some of the basic materials of the piece.

They explored the use of electronic music technology in live performance, invented body movements with vocalised analogies which were promptly turned into sound samples to be articulated by their own movements in the invisible beams of the ultrasonic sensors or by the operation of the switches and joysticks.

Composition, Rehearsals and Performance.

Out of all this, the makings of a piece slowly emerged, and, during the 2 weeks or so around half-term Heather wrote the final version. Early in November, three whole days (morning and afternoon), were devoted to rehearsals – and finally, on the afternoon of the last day, “Seasons and Cycles” was given its first performance by a dedicated cast to an enthusiastic audience of parents, other Leighswood pupils and staff.

“Seasons and Cycles”

“Seasons and Cycles” uses the children’s voices (sung and spoken), with a small band of the conventional musical instruments available in Class 4S – flutes, recorders, keyboards, violin, guitar – together with changing groups of Soundbeam players, 2 or 3 moving in the *Beams*, 6 or more ‘playing’ Switches to articulate the sound samples they had made (and others)

“Seasons and Cycles” lasts about 20 minutes. There are 6 movements.

"SEASONS AND CYCLES"

by

Heather Wastie

(The Composer's programme notes are interspersed with an analysis - reprinted from Dr Nicholas Bannan's "Report on Seasons and Cycles")

Spring

1. In the Springtime

A short looped piece based on lyrics and music composed by some of the children after improvisations with the whole class

The work begins with the sound of a harp ostinato, to which a flute trill is added. The choral group chants the *March, April* material and associated melody. The harp ostinato terminates in a chord.



"...you can use technology to make music"

2. Bluebells

*Both music and words were composed by Heather Wastie shortly before the workshops began. The text is in the form of a Double Tetractys which was used to inspire similar poems by the children. The melodic loop on which the piece is based was derived from the earliest known canon, "**Sumer is icumen in**" (12th century).*

The interlocking 'gamelan' ostinato familiar from the very first session is introduced, accompanying the first verse of the *Bluebell* song. An interlude is performed in which metallaphone solos are controlled from Beams 3 and 4. Verse two of *Bluebell* follows, ending with the unravelling of the gamelan texture.

Summer

3. Summer Storm

This piece combines tunes and rhythmic samples created by the children, together with a short section of "Summer" from Vivaldi's "The Four Seasons" for string orchestra. It's programmatic nature is inspired by Vivaldi's text: "The breeze blows gently, but challenged, weary limbs are robbed of sleep by the fear of lightning, savage thunder and raging swarms of flies and bluebottles! the Heavens thunder and lighten ..."

A switch activates a guitar ostinato. To this is added a chant on the summer months, building up with the support of a melody on the Beam and fluctuating textural elements controlled from various switches.

New samples are introduced: buzzing sounds; a *regal*-like instrumental melody. These alternated with similar sounds on the live instruments.

A bass drone emerges, underpinning further contributions for the live instruments, including the piano; and the dramatic introduction of the Vivaldi sample and sampled thunder, controlled from Beams 3 and 4. As this climactic effect subsides, the background texture segues into:



“....I liked people dancing in the sensors”



“Ghosts playing conkers in the middle of the night”

Autumn

4. The leaves are green, the leaves are red, the leaves are brown

Another piece which resulted from whole class and small group improvisations, using words and tunes by the children.

5. Trick or Treat?

A ghost story using samples created by the instrumentalists, whistlers and conker players! The children experimented with their samples using Soundbeam and then drew pictures representing the sound world they had created. Heather then used the pictures as inspiration for the poem.

The months are chanted *a cappella*. A song about the colour of leaves arises. Two boys dressed as ghosts enter and play a slow-motion game of conkers. Samples which sweep through overtones are activated on Beams 3 and 4. Meanwhile, a spoken text is performed live through Microphones 2 and 3 by pairs of children who come forward to deliver couplets of a poem. The background texture alters to include the samples of conker sounds and the spooky low whistling, as well as other, instrumental sounds.

This is perhaps the most complex section of the piece, and its conclusion leads to a short break in which several aspects of the resources are re-set.

Winter

6. Snow

Winter was by far the favourite season for Class 4S. One of the main reasons they gave was their love of snow, so this piece evokes a world of white and snowball fights. The melodic elements were composed by the children and Spring is not far away.

An image of snow is created by a complex interaction of 3 Beams and several switches, giving rise to an atmospheric, kaleidoscopic texture.

A pulsing Bass drone underpins a walking melody to which a song is added: the familiar chanting of the months. Here, rhythms and durations are less predictably coordinated, leading to disjunct repetitions and a confused effect – the musical equivalent of a snowball fight? A March-like clarity then fades, slowly dissipating and thinning.



Throwing Snowballs

Video and Discussion

Three weeks or so after the first performance, Heather Wastie, Adrian Price and director/cameraman Steve Spencer of Redweather Productions visited the school to show Class 4S a two camera video record of the first performance – which the children followed with rapt attention, broken by only the occasional delighted giggle of recognition.

Later that afternoon, the members of Leighswood School staff involved – Mrs Jan Taylor (Head Teacher), Mrs Helena Smith (Class Teacher), Mrs Kathleen Curd (Music Specialist) – together with Mike Parrott (Group Manager for Arts and Development, Walsall Metropolitan Borough Council), joined Heather Wastie, Adrian Price, Steve Spencer (of Redweather Productions), Dr Nicholas Bannan (of the International Institute for Research in Music Education, Reading University) and Edward and Judy Williams (Elektrodome's Joint Artist-ic Directors) in an illuminating discussion of the Project and its successes and failures. (see Edited Transcript of Discussion – available from Elektrodome)

What Class 4S thought

In January, 2003, The children were asked to fill in the answers to a questionnaire about "Seasons and Cycles" (see Analysis of Childrens' Responses – p. 12).

Graphic "Score and Parts"

The final stage of the Elektrodome commission is the completion by the composer of a 'score and parts' so that "Seasons and Cycles" can be offered to other classes in other schools for rehearsal and performance, without the need for the presence of the composer. Special graphics may need to be developed, particularly for the Soundbeam players' parts, and the package will also include the sound samples developed at Leighswood, a teacher's pack, and the video of the Leighswood performance for guidance. Further performances, both in a different Walsall school, and also, perhaps, in Berkshire are currently under discussion.

Assessment and Report

Dr Nicholas Bannan (of the International Institute for Research in Music Education, School of Education, Reading University) was commissioned by Elektrodome to visit several of Heather Wastie's workshops with Class 4S at Leighswood School, as well as the performance, the subsequent show to the children and the discussion with staff, in order to assess the musical, educational and other results of the Project. His report is also available from Elektrodome.



HEATHER WASTIE – composer, poet, performer, animateur - studied composition with John Joubert at the University of Birmingham, now specialises in recreating early music and composing for live performance electronic music technology, including Soundbeam. Her work includes workshops and performances with people with learning disabilities, and commissions from The Soundbeam Project and Elektrodome for pieces for mainstream Primary schoolchildren.

Other commissions include music for Walsall's Day in the Dome, Lichfield Mysteries (she is their Composer-in-Residence), and education projects with Birmingham Royal Ballet and The Cheltenham International Festival of Music. She has recently completed the soundtrack for an animated film by young people with a learning disability, in a project for Birmingham City Council, in association with Vivid, The Drum, and Birmingham Film & TV Festival.

A member of *Alchemy* – a trio of composers performing their own music inspired by medieval chant and the hidden mathematics of nature - and a published and prize-winning poet, Heather has toured in Russia, performed for Prague Television and recorded for BBC 1 and Radio 2. In 2001 she received a Creative Ambition Award from West Midlands Arts. She has just returned from a successful visit to Portugal with the dance group Tiptone

Three poems by members of Class 4S, Leighswood School

Jake and Ryan

Red
Shiny
Cricket ball
Hit the white wickets with the cricket ball
When they throw the cricket ball they hit it
With the white bat
With the bat
Red ball
Red

Jessica & Marshall

White
White snow
Shining snow
Sparkling white snow
Christmas has snow, lovely snow, lovely snow

Scott

Red
Roses
Beautiful
Delicacies
Growing each day till they're big and they're strong
All opened up from the day to the night
Delicacies
Beautiful
Roses
Great

**Leighswood School,
Broadmeadow, Aldridge, Walsall
Class 4S**

**Analysis of Children's responses to Pilot Project
Questionnaire
(January 2003)**

Question 1. "Are you a boy or a girl?"

Girls	Boys
11 (34%)	21 (66%)

Question 2. "Did you enjoy the project"

	Girls	Boys
Yes	11 (100%)	21 (100%)
No	0	0

Question 3. "Because of the Project, did you like music

	Girls	Boys
a. Less than you did before?	0	0
b. As much?	1 (9%)	4 (19%)
c. More?	1 (9%)	12 (57%)
d. Much More?	9 (62%)	5 (24%)

Question 4. "What did you enjoy most"

	Girls	Boys
a. Singing?	1 (9%)	0
b. Playing violin, recorder etc?	1 (9%)	4 (19%)
c. Making the words?	0	0
d. Making the sounds?	1 (9%)	1 (5%)
e. Using Soundbeam's Beam?	0	5 (24%)
f. Using Soundbeam's Switches?	7 (64%)	10 (48%)
g. Other?	1 (guitar) (9%)	1 (5%) ("being interested?")

Question 5. “How has your knowledge of music changed?”

	Girls	Boys
Do you know		
a. a lot more?	6 (55%)	6 (29%)
b. a bit more?	4 (35%)	14 (67%)
c. about the same?	1 (9%)	2 (10%)

Question 6. “What else have you learnt about?”

	Girls	Boys
a. How to write poems	6 (55%)	7 (33%)
b. To use technology to make music	9 (82%)	17 (81%)
c. That you can do movement	2 (18%)	0

Question 7. “Would you like to do another Project?”

	Girls	Boys
Yes	11 (100%)	20 (95%)
No	0	1 (5%)



Class 4S

Some Quotes

What else have you learnt about?

(Girls)

“I learnt to use words and put them in songs”

“I’ve learnt that you don’t have to use a CD player to make the music”

“I’ve learnt how to play the Swi(t)ches and the Beams

“ I have learnt to write a techtractis poem and I have learnt how to do some movements and (like) some dances”

“I have learnt how to writ(e) techtractis poems and that you don’t need a(n) Instrument or your voices to make music but you can use technology.

(Boys)

“I have learnt how to write tectratys poems and you can use technology to make music”

“I’ve learnt that you don’t have to use instruments to make music”

“I learnt that Soundbeam goes low high low”

“techno(lo)gy into musc”

“I have learned about tectractis poems”

“I hav(e) learned how to play Soundbeam and the Switches”

“How to write techtractis poems, and a poem”

“I have learnt how to play Soundbeam Switches”

“I have learnt about technology and how to use it”

“I’ve learnt that you don’t have to use in(s)truments. (you) all you do is press a switch and use a sensor.”

Would you like to do another project like this? If yes, what would you like it to include?

(Girls)

“Yes more of the Switches”

“I would love to do a project like that again and I would like it to include dancing”

“I would like another project that included, basically, any kind of music and computers”

“Yes, and I would like you to teach us how to play guitar and teach us to make our own poems, and have a competition at the end of the day to see who wrote the best poem.”

“Yes. I would like to include pop music - some drama.” (2 responses)

“Yes I would like to have another go, but could I go on beams more?”

“Yes! I would like to play instruments more.”

“Yes. Art – Heather – Adrian - Steve”

(Boys)

“Yes I would (like another project) because it’s fun. I would like in it drums, Soundbeam, singing and the beams”

“Yes! More poetry and more interviews* and more instruments”

“Yes. I would like it to include more technology”

“Yes. I would like to include different instruments and different noises.”

“Yes. I would like to make more sounds on the Soundbeam Switches.”

“Yes. I would like it to include ICT.”

“Yes. I would like to include teaching people how to play instruments.”

“Yes. I would like to use the Switches more, and more acting”

“Yes. I would like it to include Soundbeam Switches and beams”

“No.”

What else would you like to say about “Seasons and Cycles”?

(Girls)

“It was great working with Heather, Adrian and Steve. We miss you.”

“It was brilliant. I enjoyed everything.”

“The Project was not easy”

“Seasons and Cycles was the best project that I’ve done in Leighswood School.”

“It was all brilliant, and it was worth Monday afternoon. I really liked the video, and I would love to do another Project. Thanks.”

(Boys)

“It was the very, very best Project I have ever done”

“It was brilliant”

“I did n’t like singing”

“I would like to make more sounds on the sound beam switches”

“Projects are not easy”

“ I thought Seasons and Cycles was brill, and I would like to do a different play again”

“You need to do more work than you think.”

“It was magnificent and very, very, very, very, very, very, very, very fun!!!”

“I would like to say I liked people dancing in Sensors. I also like to say I like pressing Switches.”

“How can we make it more interesting – like mak(ing) a game?”

“I would have liked to play the Switches more instead of singing. I think it was the best project I’ve ever done.”

“It was fun and I like(d) it. I liked the bluebell one.”

“I liked the conkers best”



Sampling Session

Mrs Jan Taylor. (Head Teacher, Leighswood School)

‘...an educational benefit, and one that fitted in with what we think of as our ethos, as part of our school culture, which is one of encouraging all children to participate in something and to perform, really, because we do want children to have that wonderful experience and the confidence that comes with it.’

‘On other levels it will have meant more to some individuals in terms of the development of their confidence, irrespective of the musicality of it – just them as young people growing and developing. Some will have gained more than others. Some of them will have participated with people in groupings that might not have ever arisen, because, whilst they are a mixed ability class, we teach by group and teach by ability, and they’ve had a different grouping for this, which is good for them as individuals.’

Heather Wastie (Composer/librettist)

‘...He was the one who brought me a tune scored out. He just drew four lines, and then he drew quavers and crotchets on the lines, and I interpreted it and said “Is this what you mean?” and he said “Yes”’.

HS. ‘I think it was after that, when you used that tune, you could see the sense of pride that he’d got that it was his idea, that seemed to bring him, pull him further into it.’



“I liked the conkers best”

Mrs Helena Smith. (Class Teacher, 4S, Leighswood School)

Because some of them would say things like “Oh! That’s my tune you know” – it would be a tune that they’d given to you, and then you’d put it into Soundbeam and changed it, and they would say “That’s my tune”, and they would recognise it, so they knew that it was something that had been put in and that you could change it around.

‘I think it’s given some of the children opportunities to shine in ways they wouldn’t have shone in the classroom - given them the chance to see each other in a different light because...

KC. ...they’re seen to be shining in something whereas normally they wouldn’t be seen by the others to have particular ...’

Mrs Kathleen Curd (Specialist Music Teacher, Leighswood School)

‘Yes, concentration’s got to be there, as you could see on the faces of the children when they were actually performing. But they weren’t concentrating on making the sound like “fingers in the right place”, “mouth right” and everything - they were concentrating on when to come in....’

Michael Parrott (Group Manager for Arts and Development, Walsall Metropolitan Borough Council)

‘One of the most important things is that Soundbeam is a mechanism for inclusiveness. It can be inclusiveness within a particular cohort of children, it could be a method of different groups of children coming together’

‘There are many boys who would not necessarily want to play an orchestral type instrument, but would be absolutely fascinated by the technical and then the musical capacities of Soundbeam, or related technology.’

‘Now, I really do believe that Soundbeam is a means by which children can be brought in to making music with potentially less initial barriers...’

‘...When you actually talk to the boys, they’re far more intrigued by technology, computers, other possibilities. I suppose that, in music education today, we haven’t really got the bonding of traditional music making and technology close enough within schools, or early enough, so that boys can actually identify it, and then lock into it – which is why I’m looking at this as a major issue of inclusiveness’



“I learnt to use words and put them in songs”



Sheltering from the storm

Dr Nicholas Bannan (International Institute for Research in Music Education,
University of Reading)

‘...this was an ordinary class, they had not been selected for this, it was done in time taken out of class time, not after school. It was being done as a class activity, not as a specialist extra-curricular music club.’

‘...there’s this wonderful transfer of these sounds from being live to being sampled, to being sampled and manipulated, and then back again and then mixed together, the live and the sound samples

I think that the idea of contagion - i.e. being excited by what other people do - is one of the things we miss out on the kind of music curriculum which we have in this country. The written documentation doesn’t tell us anything about how to do that well. This project achieves that brilliantly.