

MICRO- SCOPE

► Issue 47

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- Computer-based groupwork
- Computer-assisted learning in Romania
- Reference CD-ROMs and information handling skills
- Building on IT skills
- Hitch-hiker's guide to computers

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Contents

<i>MICRO-SCOPE</i> matters <i>Senga Whiteman</i>	1
Computer-based groupwork – what are they learning? <i>Heather Govier</i>	2
Using reference CD-ROMs to develop information handling skills <i>Anne Sparrowhawk</i>	4
NCET news <i>Barry Wake</i>	7
Computer-assisted learning in Romania <i>Lesley Andrews</i>	10
To accommodate or not to accommodate? <i>Mícheál Ó Dúill</i>	12
The hitch-hiker's guide to computers when they don't work! <i>Trevor Wright</i>	15
NEMA 94–95–96 <i>Barry Wake</i>	17
Building on IT skills <i>Graham Dean</i>	21
Quadromedia <i>Philip Griffin</i>	22
Chiltern region news	26
IT scheme of work (the Wiltshire way) <i>Reg Eyre</i>	27
Mapping IT – part two <i>Reg Eyre</i>	29
MAPE/Longman Photographic Competition results <i>Theresa Mungall</i>	30
Becoming actively involved in MAPE <i>Les Watson</i>	31

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MICRO-SCOPE 47

MICRO-SCOPE matters

Senga Whiteman
Editor

Easter is the time for the annual MAPE conference. This year it will be held at the University of Reading from 29th to 31st March. I hope this edition of *MICRO-SCOPE* will arrive in time to prompt readers to book their places. It's always an interesting event which provides lots of opportunities for learning about a range of software, discussing issues relating to information technology and education, and making friends (or meeting those you met at previous conferences). Further details are on the outside of the back cover. Book now!

If you've ever sat down and played with a CD-ROM you will know how time flies by as you discover a range of myriad facts that prompt the thought 'Well, I never (knew that)'. CD-ROMs can facilitate serendipitous explorations but the route you have taken often becomes invisible and almost impossible to replicate in future. CD-ROMs can hold an amazing amount of data but accessing it efficiently can be challenging. Do we need different search strategies to locate data in a multi-media format from those we use for print alone? Is a picture worth a thousand words? (If so, what's a moving image worth?) The discs are available, what shall we do with them? Help is at hand. Anne Sparrowhawk, who was the NCET Field Officer for the 1994 CD-ROM in Primary Schools Initiative, describes the pack she has produced, 'Finding Out', and gives valuable examples of aspects of the materials in action. Your school may already have received this pack. Details for those who want to purchase it are on p. 8 in NCET News.

Pupils often work in groups when they are using a computer. This may have been due to scarcity in the early days, although the benefits of collaborative learning, stimulated by IT, soon became apparent. Grouping pupils is always a challenge — there are so many variables. Heather Govier has produced some guidelines for evaluating computer-based group work though they seem equally applicable to group-work in a range of contexts. If you enjoyed reading her advice about IT Policy in the Autumn Term edition of *MICRO-SCOPE* you'll be equally happy with this term's instalment.

Have you browsed the Internet yet? How was it for you? Slow is how it was, and is, for me. You

need a little pile of jobs that you can do while you wait for the relevant page to load. It is possible to read your daily paper on the screen but it's probably quicker to walk to the newsagents and buy it. The Internet is part of the much vaunted 'Superhighway' (or is it just the M25 on a very busy Friday evening?). Barry Wake outlines one or two of the pilot projects and they sound interesting and exciting so I'm looking forward to seeing how they turn out.

One topic that seems to raise blood pressure levels is that of Integrated Learning Systems. Almost everyone has an opinion about their value regardless of their own personal experience (or lack of it). Barry also briefly reviews the Phase 2 Report of the ILS Evaluation Project. The message seems to be one of cautious optimism about the benefits for children's learning and cautious pessimism about the likelihood of British teachers getting access to relevant professional development.

I went to Romania two years ago in the wake of a convoy of computers and demonstrated software to Romanian teachers. It was an unforgettable experience — we were given the warmest of welcomes and had to learn, very quickly, to down glasses of home-made plum brandy with breakfast, lunch and supper. You too could go to Romania and help with the in-service education of their teachers. Read the article by Lesley Andrews on page 10 and, if you'd like further details get in touch with her. Roger Keeling is going back at the end of March, just before the National Conference, so if you'd like the latest news please get in touch with him, either at the conference or at Newman College in early April.

If you feel Romania is a bit too adventurous then there are other invitations in this edition of *MICRO-SCOPE*. There may just be time to enter for NEMA '96 (National Education Multimedia Awards). Further details are on page 17, it's worth sending for the details as they include a free CD ROM. Philip Griffin's article describes a selection of multi-media applications, so if you are an Arc user, there's some further information you'll find helpful. If NEMA '96 doesn't appeal, what about becoming more actively involved in MAPE? You could edit this journal. You could join one of the working groups. Read Les Watson's article to find out more.

Computer-based groupwork – what are they learning?

Heather Govier

In primary classrooms around the country, children can be seen participating in computer-based groupwork. By far the most common use of computers involves pairs working together on some program with little intervention by the teacher. This almost certainly happens in your classroom and it is likely that your involvement in the work is largely restricted to getting the task underway and helping with the occasional difficulty. But what are your pupils really learning from this kind of work? Could you put your hand on your heart and offer a justification to convince the OFSTED inspectors of its value?

Children *can* gain an enormous amount from computer-based groupwork provided that:

- the task is stimulating and meaningful;
- the group is appropriately structured;
- sufficient time is allocated to the activity;
- children are clear about what they are supposed to learn.

Do all these prerequisites of effective groupwork apply to the computer activities going on in your classroom? To find out, why not try a small piece of action research? This will take about half an hour and I believe that you will find it half an hour well spent. It could be carried out in a normal classroom if the rest of the pupils were engaged upon a task which made few demands on you, but it might be better to find an odd half hour when the rest of the class is elsewhere so that you can devote all of your attention to the group at the computer. Your task is to plan and observe a session of computer-based groupwork. In order to do this you will use three checklists: for planning, for observation, and for evaluation.

The task will use a piece of content-free software of your choice. An ideal program would be something such as Logo or *Developing Tray* (remember *Developing Tray*?) or any other content-free package such as a painting program, word processor, database or spreadsheet.

First plan your group activity using the following checklist.

Planning checklist

1. *Selecting a stimulating and meaningful task*

- The task for the group is
- This will stimulate effective learning because
- This is meaningful for the group because
- The outcome will be

2. *Composing the group*

- The social mix of the group will be because
- The ability mix of the group will be because
- The gender balance of the group will be because
- The size of the group will be because

3. *Making time*

- The activity will be carried out (when)
- This is an appropriate time because
- If the activity is completed in less time than planned then
- If the activity is not completed in the time allocated then

4. *Making objectives explicit*

- What will you say to the group about the purpose of the activity?
- How will you ensure that they know what social behaviour is expected of them?

Now, before carrying out the activity with pupils consider what you will observe as they work together at the computer.

Observation checklist

1. *Does the work promote active learning?*

- What activity is taking place?
- Are pupils reading? writing? listening? thinking? arguing?
- What else are they doing?

2. *Are transferable collaborative skills developed?*

- Is there much discussion?
- Are they talking about the task in hand?
- Do all members of the group contribute equally to the discussion?
- If not, describe the pattern of contribution?
- Do members of the group listen to each other?
- Do members of the group respect each other's views?
- What evidence do you have for this?
- Do they argue their own positions rationally?
- Did any children change their positions after discussion?

3. *How meaningful and purposeful is the task?*

- Do all pupils understand the purpose of their task?
- How is the labour shared?
- Is there a clear outcome?
- Is the task related to a real-life activity?
- If so what?

4. *What are the roles of teacher and learners?*

- Do pupils turn to you for support?
- Do pupils seek support from each other (eg by asking each other questions)?
- Do pupils expect you to know the answers?

5. *Does the work stimulate articulation, reflection and exploration?*

- Is there any evidence that pupils are refining their ideas by articulating them?
- What evidence is there that pupils are reflecting on what they are doing?
- What exploratory activity is taking place?

The final part of your task is to evaluate the success of the group activity after it has been completed.

*Evaluation checklist*1. *Was academic performance improved?*

- What evidence of learning gains did you observe?

2. *Did friendships develop across usual barriers?*

- What fruitful intercourse occurred between pupils who do not usually work together?

3. *Was pupils' self-esteem enhanced?*

- What evidence of increased confidence did you see?

4. *Did the children enjoy what they were doing?*

- What evidence of enjoyment/satisfaction did you see?

5. *Was more time spent focused on the learning task?*

- Estimate what proportion of time pupils were working on-task.
- How does this compare with other class activity?

6. *Did pupils become more ready to listen to the views of others?*

- What evidence of this did you see?

Be honest with yourself, but do not expect too much. The six learning gains you have been looking for have been found in studies of the long-term benefits of collaborative group work but will be hard to identify in a half-hour snapshot. However, if there is not even a hint that, for example, pupils become more ready to listen to the views of others, you may need to question the way in which the group was structured or your instructions to the children when setting the purpose of the activity.

Finally, review the activity with an eye to the future.

- What were the problems with this activity?
- Which learning objectives were not fulfilled?
- What would you do differently next time?

Busy teachers rarely find themselves able to stand back long enough to observe the detail of children's learning experiences, but those who are forced to do so by the requirements of Masters or other INSET courses find that it can be a very worthwhile experience. Why don't you make the time to try it?

Using reference CD-ROMs to develop information handling skills

Anne Sparrowhawk

NCET Field Officer for 1994 CD-ROM in Primary Schools Initiative

An earlier article has discussed the visits I made to a significant number of Primary Schools in the Autumn term of 1994 to explore the use schools and children were making of the CD-ROMs provided through the government funded CD-ROM in Primary Schools Initiative. Teachers universally expressed the view that it would be valuable to have support materials available as starting points for using the wealth of material on CD-ROM. As a result, a group of teachers and myself met to discuss the most pressing areas for resources, and to specify work that each of us would then do, to create the materials now published by NCET as 'Finding out!'. These materials will be sent free to all the schools in the 1994 initiative, and will be available for purchase from NCET (price £9.95) by other schools too.

The pack contains a set of 48 photocopiable worksheets, each of which is designed to be useable with a variety of CD-ROM encyclopedias. In addition there is a Teacher's Guide which discusses the rationale behind the materials, and places them in the broader context of using reference material.

From observation of children using CD-ROMs it is apparent that all at some point need to have time to browse the material in order to identify and understand the overall contents and structure of an encyclopedia. However, there is not time within the current pressures of the Primary classroom for solely serendipitous learning. Many children approach the CD-ROM with very specific questions to find out about. This is immensely helpful as it concentrates the children on the task in hand, rather than allowing them to wander about in a more aimless fashion. Often written questions, either on a sheet prepared by the teacher, or by themselves, helped to focus the child on a specific set of information. Much of the contents of 'Finding out!' addresses the issue of questioning – what type of answer do you want for a specific question – if the initial question does not seem to be answered, is there another way of asking that question that might be more productive? What conclusions can you draw from there being no information about that particular item?

Clearly 48 worksheets cannot possibly explore all

areas of the National Curriculum, or all areas of information handling. They do however offer some examples of different approaches to the resources which it is hoped will offer teachers ideas to adapt and use within the subject areas they are currently addressing.

A framework for information skills.

Decide – Look – Select – Retrieve – Process – Record – Review – Present – Evaluate

This sequence of activities is really a cycle – the final evaluation might lead you to start the process again refining your choice of information, and so on. As a process, its purpose is to enable children to choose appropriate information and make it their own. This is particularly important with encyclopedias on CD-ROM; whereas once teachers complained that children were just copying information out, now the computer's printer will do that for them with even less effort! I have observed a child grasping 17 pages of printout on Uganda and claim that 'I've got lots of information about Uganda'. My suspicion is that *he* did not in fact have *any* information about Uganda – it would not really become his until he had reviewed it and presented it in some way showing his own understanding.

Not all of the steps in the sequence listed above are included within this pack. 'Select' for example is missing because these sheets are specifically designed to be used with reference CD-ROMs or printed encyclopedias and so the process of selection of these as the appropriate resource as opposed to picture books, photographs, or newspapers for example, has not been included.

Decide

Six sheets within the pack explore this initial phase of deciding what sort of information was required. Children often felt that teachers were expecting them to find answers that were exclusively textual. One child I worked with was uncomfortable about using a diagram of a skeleton as evidence of her assertion that a leg bone was the longest in the

Finding out!

What are you being asked to find out?

What are you looking for?

- a picture
- a date?
- a name of a person?
- an explanation of how something works?

How will you begin your search?

- using the index?
- using a word search? which words?
- looking in a section of the encyclopedia? which one?
- looking at the pictures?

When you have found some information, what will you do with it?

- print out a picture?
- print out the article?
- save the text to the clipboard?
- save a picture?
- copy out the specific information you were looking for?

How will you review the information?

- have you got too much information?
- which are the important details?
- which are the details you do not need?

How will you present the information?

- rewrite it in your own words?
- quote from the encyclopedia?
- use it to illustrate your work?

Did the encyclopedia give you all the information you needed?

- could you have found further information by looking somewhere else?
- have you understood all the information you have chosen?

Write down a question that would be interesting to find out about next!

Fig. 1. *Decide.*

human body. Sometimes a map, a picture, a date, or an animation might be a more appropriate source of information, and these sheets explore the issues surrounding decisions of that sort.

Retrieve

The seven sheets that support this activity arose from experience in which children found difficulty in identifying the appropriate words to use in searching through the encyclopedias. Children were

often successful when they were searching for a particular piece of information that might have an entry all to itself. However broader searches often presented real difficulties as the categorisations supported on the CD-ROM were often very unfriendly as far as children were concerned – 'Life Sciences', 'Performing Arts' are not very meaningful to 9 year olds. One child wanted to find out about African Animals; he typed in Animals, and then had an impossibly long list of entries arranged alphabetically that he was starting

Words are not all the same!

You can think of different sorts of information as being rather like looking at a tree. The main subject of the information is the trunk of the tree. This is the possible diagram for the 'animal' tree. The further up the branches you go, the more specific the information will be that you find. Sometimes you want to start at the very bottom of the trunk and explore all the way up until you reach the branches. Other times you will want to start at the top of the tree and work back.

Not all the words have been put into the tree. Work with a friend to decide whether these words should be at the main branches or at the tips of the tree. There are fewer articles about the words the higher up the tree you climb. There will be lots if you have chosen a main branch word, and fewer and fewer as you go up the tree to the tips of the branches.

Amphibian	Hawks
Deep-sea life	Evolution
Hoof	Insect
Migration	Nest
Prehistoric animals	Rodent

When you are looking up information on the CD-ROM encyclopedia think about whether the word you have chosen is a word near the trunk or at the top of the tree. If you choose a trunk word, you may find lots and lots of articles to read before you find specific information. If you choose a top of the tree word, you may only find a little information, and then need to widen your search.

Fig. 2. *Retrieve.*

to work through. It would have been a long time before he found zebra!

These sheets explore the hierarchies of words that might be produced in any one topic, helping children to differentiate between words like 'mammal' that applies to many different creatures and 'tiger' that applies to a much smaller range of animals.

Process

This is a broad topic, and is covered by half the sheets in 'Finding Out!'. Exercises include mechanisms for deciding which pieces of text are relevant to the subject for which you are searching, being critical about the text they are searching. I watched a child in a school in Birmingham collect

Hercules

These sentences about Hercules have all been muddled up. Can you sort them into the right order and then write out the passage as it should have been written?

He was amazingly strong.

He was the son of the god Jupiter and a mortal princess.

In the end, Hercules was killed when he put on a poisoned shirt.

Later, Hercules went mad and killed his wife and children.

To make amends, he had to perform twelve tasks, or labours.

As a baby he strangled two snakes, sent by Jupiter's jealous wife to kill him.

Hercules was a famous hero of ancient stories told by the Greeks and Romans.

These included killing the Nemean lion and the many-headed Hydra; and washing clean the stables of King Augeas, where 3000 oxen lived.


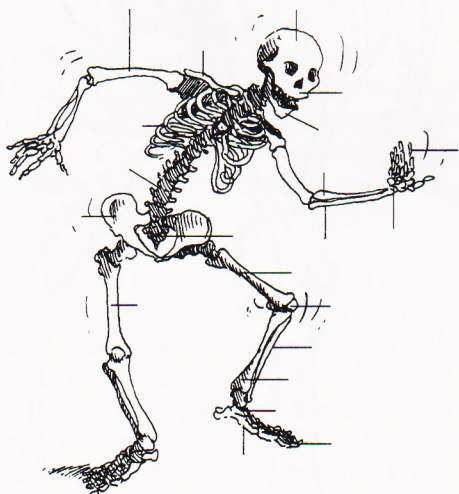


Fig. 3. Process.

'The knee bone's connected to the ?'

This is a diagram of a human skeleton. You can see that there are lots of lines where labels should be, but the labels have been left off. Find a diagram of a skeleton in an encyclopedia and use it to label the bones in this diagram.



What is the knee bone really called?

Read the information in the encyclopedia about the human skeleton. Why do we have a skeleton?

Can you find out how many bones there are in the human body?

Can you feel your ribs? Count how many you have.

These are the common names for different parts of your body. Use your completed diagram to fill in the gaps in the table below.

Common name	Latin name
Shin	
Backbone	
Skull	
Shoulder blade	
Wrist	
Fingers	
Toes	

Fig. 4. Record.

information from a CD-ROM about Birmingham. Unfortunately it was Birmingham, Alabama not West Midlands. It was fairly clear that in this context he was not reviewing the information presented to him critically, as there were many clues that he had missed.

Other sheets explore the use of video or animation which is a new opportunity that CD-ROMs offer. This is an area which will develop as the visual quality of video improves, and as the choices made by publishers about the inclusion of video clips develops. Other sheets in this section explore the skill of sifting a vast source of information, helping children to scan through and read only that which is appropriate to their task, and finally a set of three sheets help children to summarise what they have found out.

Record

In order to develop this skill, over a quarter of the sheets explore a variety of ways of recording information. These vary from tabulation exercises, to creating diagrams to represent the information,

to labelling provided diagrams. The purpose of these exercises is to record the information from the source, and then to be able to use the table to present the information in another way which is personal to themselves.

This might be to write a narrative piece of text, or to discuss whether one view is correct or not. It might be in the form of a cartoon, a diagram or a drawing. The purpose of recording the information is to be able to find and use it later and in doing so to be able to show understanding of the work they have read and reproduced.

As was suggested earlier, these sheets are not the complete answer to information handling skills for CD-ROMs, but it is hoped that they will form a useful starting point, and spark ideas that teachers can translate into the curriculum areas they are working on. Without a doubt these skills are going to be critical for the children who are currently in Primary School. By the time they leave school, computers and information will both be available in abundance, and their skill and competence at using the machine to access appropriate information will be of great importance.

NCET news

Barry Wake
NCET

Piloting superhighways in education

After the open consultation last year, to which MAPE was one of some 400 respondents, the English, Northern Irish, Scottish and Welsh education departments jointly published 'Superhighways for Education – the Way Forward' (HMSO, £4.95) in which they set out their thinking on the next round in the information explosion. They also announced over twenty educational pilot projects, of which at least six will specifically involve primary schools.

For example, one project involving a secondary school and ten primary schools will pilot a national network model for a desktop-to-desktop scheme delivering on-line interactive education services and applications covering the whole curriculum. Another project will use photographic and digital technologies to actively involve children at Key Stages 1 and 2 in the creative explorations of

personal and global histories to produce a multimedia programme using images, text, music and voice for distribution over the Internet.

Other projects will be looking at ways in which the Superhighway could support and challenge children in small rural schools, and a group of primary, secondary and special schools will share in the development of a World Wide Web server. Still others will be investigating the potential of video-conferencing and various collaborative learning environments, or creating support materials for staff development. Special needs, home-school links, parents and the business communities are not forgotten either, so all in all the results will cover a wide range of educational opportunity in these new broadband technologies.

The evaluation of the pilot projects will be managed by NCET, or by SCET for those in Scotland. Further details from Roger Blamire at NCET or Carole Gillespie at SCET.

New information handling resources

As part of the current Primary Information Handling Initiative, a number of regional two-day courses have been running at various centres aimed at supporting headteachers and IT co-ordinators. The two major aspects of these courses involve developing a whole school approach to information handling and exploring the necessary skills that children need to take them beyond 'baseline' activities. Building on the 'Getting Started with Information Handling' pack (£17.50), further INSET materials have been prepared which help to develop the higher order information handling skills. This 'Making Sense of Information' pack (£25) centres on a 'process loop' model, and comes with training materials and a video.

Further details from Ruth Bourne, or Sales at NCET.

Integrated Learning Systems – Phase 2

The ILS Evaluation Project – Phase 2 Report shows that many of the results and indications of the Phase One evaluation have been replicated in Phase Two. There are certainly gains in basic numeracy and some in reading for Key Stage 2 and 3 pupils regularly using *SuccessMaker*, one of the three computer-based learning systems in the Project. Although the findings revealed no significant gains over the control groups for KS 1 children, headteachers did report noticeable improvements in attitude, concentration and motivation. In fact, the Report maintains there is qualitative evidence that *SuccessMaker* developed positive attitudes to learning and a greater independence across a wide range of pupil ability.

But – and this is a big 'but' – all the systems are very expensive. More importantly, there are huge professional development implications. Teachers will need training and support in planning and integrating these activities within a whole-school approach. It is vital that they understand the content, and are able to interpret the diagnostic feedback effectively. In the State of Florida, apparently, every primary classroom has four workstations but there is constant staff training and development taking place. That may not happen here for some time.

For further information, contact Jenny Brown or Jane Spilsbury at NCET. The ILS Evaluation Project – Phase 2 Report is available from NCET Publications at £9.50, or Reports 1 and 2 together for £12.50

CD-ROM reviews 1996

Under the auspices of WOMPI (Welsh Office Multimedia and Portables Initiative), a further 200 CD-ROMs have been reviewed at NCET. Some are updates of earlier versions but many are entirely new. Evidently there is a good deal of cooperation going on between American and UK developers now, though predominantly for the PC and Apple platforms. There are a lot more early years 'talking books' coming through for example, and increasingly with English voices!

Indeed, the choice of CD-ROMs in nearly all areas of the curriculum is getting better and better, and not just in terms of reference materials and encyclopedias. One striking feature is 'the explosion in creativity', to use Maureen Quigley's words: more thinking and problem-solving programs, more music, more opportunities to individualize activities by adding your own elements, such as recording your own voice and sound effects. Also quite a number of multimedia authoring tools suitable for children have appeared, as well as a 'pre-authoring' stage, not so content-free but allowing you to make up your own story by selecting your own characters and scenes and even animations from within a given structure.

Two further points, notes Andre Wagstaff who is managing the Initiative, relate to costs and to compatibility. Firstly, many prices are dropping from the £50 mark of three years ago to about £25 when bundled, so shop around. Secondly, the PC compatible versions were also tested to run under *Windows95*, and with the optimization facility, they all ran noticeably better, so that may need to be borne in mind too.

Copies of the 1995 'CD-ROM Titles Review' are still available from NCET at £15.95. The current reviews for 1996 were carried out on the understanding that they will be published, and as soon as any details are known, *MICRO-SCOPE* will be informed.

The 'Finding Out' pack has also just been published, as the schools in the 1994 and 1995 Primary CD-ROM Initiatives should already know. It came about as a result of requests from teachers in the '94 Initiative who wanted support materials to help children make 'purposeful use of information' and so it has many practical activities for actively engaging in 'handling' information from CD-ROMs. The pack itself contains a set of teachers' notes, 48 photocopiable work sheets and three curriculum overview charts matching various CD-ROMs to National Curriculum topic areas. For anyone not in the '94 or '95 rounds, it is available from Sales at NCET for £9.95 while stocks last.

IT and assessment

Since 1993 NCET has been investigating the use of IT for assessment, recording and reporting. After completing nineteen projects covering a wide range of areas, they have published a report summarising the key issues. To put it in a simplified nutshell, using IT was found to improve both the quality and presentation of reports for example, and that even its introduction caused staff to look again at what they were doing and why.

The case studies fell into two main areas: those where staff used IT for recording and reporting, and those where students used IT to record their own progress or that of their peers. They range from exploring optical mark readers, reports to parents, records of achievement, to the use of comment banks. Seven of the case studies refer specifically to the use of IT in primary schools.

The 'Using IT for Assessment Key Issues' summary costs £1 and the collection of Case Study Reports £15.95 per copy, available from NCET's Sales desk.

Support for classroom assistants and technicians

As part of a project focusing on the support role of non-teaching staff in schools, NCET is collaborating with a number of organisations to develop a pilot training programme for classroom assistants in primary schools and IT technicians in secondary institutions.

It will address the need for training in a diversity of IT skills and will include an overview of teaching and learning styles. The course itself will be modular in design to cater for divergent needs and experience. Accreditation will be sought from an appropriate accrediting body and will be run from local training centres.

The course is in the elementary stages of development but further information is available from the Senior Managers Team or Linda Lucas at NCET.

NCET TV

Don't forget that when insomnia strikes, you can always watch NCET TV early on a Wednesday morning at 4 am on BBC 2, or even video it for

later. The February one is about 'CD-ROMs for Learning' and 'Maths and IT', with the special broadcast being on 'Girls and IT' (at work and at home). Future editions will look at such topics as libraries of the future, individualised learning, and home/school links.

If you missed the January one about the Internet and about Primary IT ideas, or any of the others you can get copies from NCET at £6 each. The first three broadcasts also come together in a special pack for £19.50. Contact Sales at NCET for details.

If you would like any further information about the broadcasts themselves or you have any news and events that you want to publicise in the *NCET-TV Newsletter* or on the programme itself, you need to contact Carrie Tooth or Jenny Brown at NCET.

NEMA 96

Just a reminder that the closing date for entries for this year's competition is March 31st. Entry details, plus the free CD-ROM, are available from the NEMA Office at NCET.

Useful addresses

NCET, Millburn Hill Road, Science Park, Coventry CV4 7JJ

Tel: 01203 416994

Fax: 01203 411418

Order Hotline: 01203 416669

email: enquiry_desk@ncet.org.uk

SCET (Scottish Council for Educational Technology), Dowanhill, 74 Victoria Crescent Road, Glasgow, Strathclyde, G12 9JN

Tel: 0141-337-500

And for all those who had a modem and Internet access for Christmas, full details of the Superhighways document mentioned above are available through the DFEE and HMSO home pages:

<http://www.open.gov.uk/dfee/dfeehome.htm>

<http://www.hmsoinfo.gov.uk/hmso/document/supered2/supered.html>

NCET's catalogue, CD-ROM Titles Review 1995, Parents' pages, NCET-TV fact sheets and many more 'goodies' are also already accessible via NCET's home page at:

<http://ncet.csv.warwick.ac.uk>

Computer-assisted learning in Romania

Lesley Andrews

The Romania Trust (A Registered Charity)

Background

Before the collapse of communism, the regime in Romania was probably the most repressive in Eastern Europe, with the possible exception of Albania. As a result of the policies of the Ceausescus, there was a particularly low level of modernisation, resulting in a "technology gap" which Romanians are now struggling to bridge. There is,

however, no "ability gap" in Romania as the standard of education has continued to be high. *Informatics*, a subject largely concentrating on programming languages, has been taught in schools and, while some schools considered themselves to be fortunate to have one or two Romanian-made Sinclair Spectrums, most teachers were faced with the task of teaching *Informatics* without any access to computer equipment.



Roger Keeling enjoys an advisory visit to a school in Bucharest.

The Soros Foundation for an Open Society in Romania

Since the revolution of 1989 a few fortunate schools have acquired modern computers. These have mostly been donated by The Soros Foundation for an Open Society, SFOS, in Romania, a foundation established by George Soros the American multi millionaire of Hungarian origin, who is known in the U.K. for making vast amounts of money when he speculated on "the £". It may be of reassurance to know that he is putting his vast fortunes to good use throughout Eastern Europe where he has established "Foundations for an Open Society" which are helping to establish the principles of democracy and human rights in those countries.

Working links with SFOS in Romania

The Romania Trust established a working link with SFOS in Romania in 1994 and the Computer Assisted Learning project was established. A pilot project was launched during that year which supplied RM networks to four schools in Bucharest, together with educational software donated by Oxfordshire Education Authority and Newman College in Birmingham. In September 1994, Roger Keeling and Senga Whiteman, together with

Dave Headey, an I.T. advisory teacher from Oxfordshire, travelled to Bucharest to run an introductory course for teachers whose schools were to receive equipment from the project.

Enthusiastic response from Romanian teachers and their pupils

During the past year the Romanian teachers who have been using the equipment donated by the pilot project have demonstrated their enthusiasm and have encouraged more teachers to use I.T. They have introduced the use of I.T. in many subject areas and have been encouraged by the response of their pupils who thoroughly enjoy the new I.T. classes. During last summer The Romania Trust organised a two week visit to the U.K. for the teachers, one week of which they were the guests of Newman College followed by a week in Oxfordshire. School visits were organised for the teachers which provided them with an opportunity to observe the use of I.T. in "the U.K. classroom". At this point I must thank MAPE for supporting this visit and especially to W. Midlands MAPE who provided a very memorable "Beer and Skittles" night. I am sure this was one of the highlights of the visit for the Romanian teachers (I hasten to add that the Romanians walked away with all the prizes!!)

The project expands

The project has expanded during 1995 and a further 15 Nimbus networks have been installed in schools in Bucharest, effectively quadrupling the number of Bucharest schools which currently have access to I.T. equipment. The teachers involved in the pilot project have trained the teachers who will be using the networks donated in the 1995 project, introducing them to the use of RM Nimbus equipment and the donated software.

Research Machines support the project

Since its beginnings in 1994 the project has grown and flourished and Research Machines are now demonstrating their support. A team of

volunteers within RM is helping to locate equipment and arrange its transportation to Worthing (at the expense of RM), from where it is despatched for Romania (at the expense of SFOS). The Romania Trust together with SFOS in Romania, and with the help of the RM team, intends to install a minimum of 15 networks to Romanian schools during 1996, and even hopes to double this number. It is planned to extend the project in Romania, to three of the major cities throughout the country: Timisoara, Cluj, and Iasi.

A "MAPE" in Romania?

With the expansion of the project in Bucharest it is intended to set up a teacher resource centre and teachers support group along the lines of MAPE,



Romanian Teachers collect their prizes at the "Beer and Skittles" evening organised by W. Midlands MAPE.

and The Romania Trust is currently looking for funding from various sources.

Can you help?

We would like to hear from anyone who is interested in the project or who can offer help in any of the following ways:

- Donations of RM Nimbus equipment or peripherals e.g. printers, mice, network cabling, connectors, monitor cables etc.
- Links with Romanian schools (in English – even at primary level!) eg exchanging newsletters, e-mail communications etc.

A visit to Romania?

- Help is needed in Romania with teacher training and teachers support group activities. We are particularly looking for teachers who are able to spend one or two weeks at a summer camp for teachers in Romania during August (fares paid), to advise and teach Romanian teachers in the use of I.T. (in English!)

If you can help or you would like further information please contact: Lesley Andrews, The Romania Trust, Brook Cottage, Sydenham, Chinnor, Oxford OX9 4LY. Tel/fax: 01844 351153; Fax: 01844 260334.

To accommodate or not to accommodate?

Mícheál Ó Dúill
LogoS

The computer has not changed the Primary School curriculum. By and large we use IT to enhance what we already do: using Sherston's *Naughty Stories* to spice up reading; using the computer's data processing capability to programme the teaching of basic mathematics skills with an Integrated Learning System; adding spreadsheets, databases and word-processing to projects; putting together multimedia presentations much as we made scrap-books in the past. When you look at what children are doing in class, when you look at the National Curriculum, which tells us what to teach to a class of children, nothing much has really changed since you or I were at school in the 1950's.

Except that one thing has changed. And the question is whether, in the decade and a half since we first got our BBCs, we have learned what we need to know if we are to come to terms with what came into the classroom then. Is our understanding future-proofed?

After the CD-ROM comes the Internet. But the Internet is rather different. It isn't just a means of communicating with schools on the other side of the world, of visiting the White House or touring NASA. You can do some things on the Net which we cannot explain to our pupils because we have no conception of how they happen. For instance, the BT Campus World people are very proud of a piece of software called '*NetSum*'. If, on a Net surfing expedition you come across a document

that looks interesting, you can ask *NetSum* to précis it for you and send you back the précis. How do we explain to children that a computer program can rush off to the ends of the earth, summarise another child's essay and send them the summary, all untouched by human hand?

The answer must lie in the nature of the computer, at the heart of which is the most momentous development in human language capability since writing was invented.

The computer, the keyboard and the screen sitting in front of us, is a direct development of the very alphabet and number system that we teach children to use when we teach basic skills. We all know that the computer is a 'digital' machine, and we tend to think of digits as numbers. But it is far, far better to think of the computer as a writing machine, one which uses an alphabet of just two letters. Forget the digits 0 & 1 that computerists talk about. Think of OZ, the Great and Terrible, that little old man revealed behind the screen when Dorothy's dog Toto knocked it over. Think of this little old man typing away with two fingers using just the characters O & Z. With a little imagination you will soon see that anything we can write down using our 26 letters and 10 digits may also be written using just two (but no fewer) characters. All we need to do is to agree on a pattern of O & Z for each letter of the alphabet and number – like Morse did for his telegraph code, remember: dot dot dot dash dash dash dot dot dot?

So far nothing has changed. But a computer is more than a two letter typewriter. It has all those marvellous microelectronics. But what does all the electrictrickery actually do? From our point of view, no more than did the steam engine at the beginning of the industrial revolution. The steam engine, you will recall, enabled us to harness energy rather than horses to make things move. The electronics of the computer do no more than this: they move the letters around. Switch the electricity on, and the computer can move patterns of 0 & Z, switch it off and all is still, just like a steam engine without a fire. But what does this particular technological change, from powered to unpowered words, mean for us, as teachers?

When we write using letters of the English alphabet, Arabic script, or Chinese characters, we write a 'something'. The letters on the paper are objects in their own right. This is no problem for nouns. An illustration of a tree is a graphic on paper just like the word 'tree'. But what of the word 'run'? Paper does not allow us to represent actions at all well. Much of our work in literacy involves helping children put back the lost dynamic. Think of how you read a story. The imaginative part is all in the action.

On a computer, on the other hand, words do do things. Type in a command in Logo and the Turtle moves. Press the print icon and the computer does a printout for you. The computer has, at last, provided us with a means of representing actions using language. Put another way, whereas on paper we could represent nouns (objects) well – by either writing or drawing – in the computer we can finally represent verbs actively.

The IT programme of study talks about 'data' and 'instructions'. We know these in language as nouns and verbs. So, the computer has simply added a capability to work actively with verbs, with action words. We have developed self-expressive language.

So, in the computer, we have provided ourselves with an alphabetic machine which uses two letters – an apparently obscure coding system, but remember Hieroglyphics and the Rosetta Stone. Two letters, it turns out, can do more than twenty six, (plus ten digits and a plethora of punctuation and sundry symbols), because they will work with the two-state electronic engine that powers the computer. Using just two letters we may describe, in minute detail, the appearance of the Mona Lisa, the sound of a performance of a Beethoven symphony or, frame by frame, Orson Welles' 'Citizen Kane', and then reproduce them on screen and through speakers. What we do when we put together a computer 'multimedia' presentation is to reduce all the media to writing, writing expressed in an alphabet of just two letters.

But what we do when we send *NetSum* off over the Internet is very different. We make full use of the intrinsic nature of this our new medium of written representation. In linguistics we speak of noun phrases and verb phrases. Literature starts off with noun phrases: 'Dorothy lived in the midst of the great Kansas prairies,'. When we use the computer the verb phrase comes first: Forward 50; search Kansas; print document. These words rush off to do things for us; they don't set the scene, it is already there. We may think of print on paper as nominal in nature, in the computer the essence of the word is verbal. Words in the computer can do work because they have an engine.

I hope it has now become clear why the IT National Curriculum is split into two parts. Communicating and handling information is concerned with the uses of our new two-letter alphabet: the nominal, data, aspect of the new medium. Control and modelling is a first attempt to bring the computer's verbal capabilities into a curricular framework. Unfortunately for us teachers, control and modelling are confused with pre-computer activities of the same name, even in the Orders. So nobody is quite sure what the words in the Orders mean or what to do in the classroom. It must now be clear that they refer to the computer's capability to act out, as opposed to record, written words.

The arguments of those who see the computer merely as an adjunct to a pre-computer curriculum must now be seen as conservative. Unsurprisingly, those who have invested considerable effort in developing both expertise in, and the capability to advise on, teaching techniques which use conventional paper materials will resist pressures to accommodate to the new medium. Indeed, many may be so steeped in prior techniques that they cannot but assimilate the computer to their established, set, conceptual framework. However, for the sake of our pupils, (and our professionalism), we have no alternative but teach both with and about this our new instrument of representation. The change in the way we represent the world has been so massive that we, teachers, have no option but to accommodate to the new medium. But how shall we do it?

All computer software is written in computer language. An appreciation of the nature and limitations of the computer, as an instrument of representation, will best be developed through the use of such a language by children; much in the way that an appreciation of the built and mechanical world is developed through model making and construction. Which computer language shall we use? Why Logo, of course; not for the turtle graphics reasons given in the National Curriculum,

but for the simple reason that working with Logo represents a worthwhile, necessary, educational end in itself.

How would we use Logo? Not for teaching mathematics. Turtle geometry on a computer is a very problematical activity. A 'circle' procedure in Logo (repeat 360 [forward 1 right 1]) is actually an instruction to construct a polygon, not a definition a circle. When the so called 'circle' is on the screen Logo has finished. It is we, not the computer that can make the imaginative leap from a polygon to a circle 'in the limit'. (To appreciate the problem of mathematical representation in IT, try $1 \div 3 \times 3$ on a kiddies' calculator and then explain what happened.) We would use Logo as a language environment in which it is easy to write, and invent, words which make things happen.

If you are lucky enough to have a reasonably new Mac or PC you might have come across *MicroWorlds* (from Seymour Papert's company LCSI), or perhaps heard of *Comenius Logo* from friends in Europe, or Acorn aficionados might just have discovered the non-control possibilities of *LEGO Dacta Control Lab* software. In all these versions of Logo the emphasis on drawing has gone – the *MicroWorlds* turtle starts off with its pen up. The focus of *MicroWorlds* is on actions: telling turtles to change shape, glide from one spot to another, to animate a scene. There is even the

capability, inherited from *LogoWriter*, to play with words in verbal mode: to 'run' a selected word, to experiment with the hypertext system used on the World Wide Web.

To pull everything together:

The computer is a development of the alphanumeric notation which we spend much of our time teaching children to use. To the alphabet we have added energy in a manner somewhat akin to the way we used the steam engine to take over mechanical skills. This means that we can now, for the first time in human history, represent verbs (actions) properly. This represents a huge enhancement in our capability to represent the world. In the computer we have an instrument of representation with new verbal capabilities. If we do not, as a profession, accommodate to it pretty damned quick we will be failing our pupils. So, if you have only got an old BBC, load Logo and type forward . . . Remember: *On a computer the verb always comes first**. Welcome to OZ!

*If you are unsure whether this is true or not, just look at the computer's 'user interface' in front of you. Before you begin anything you have to 'load' the software you want. If you don't press a 'verb' button, nothing will happen! A good thing about Logo is that it makes just this point.

Editor of *MICRO-SCOPE*

MAPE is seeking an editor for its journal, *MICRO-SCOPE*. The journal is published up to three times per year and is the primary communication between MAPE and its members. The editor is responsible for seeking out and commissioning articles, and ensuring that *MICRO-SCOPE* is produced to a high standard. The person appointed will play an active part in the MAPE publications group, which meets at least three times per year, possibly as the chair of the group. The editor of *MICRO-SCOPE* is also a member of the MAPE executive which meets at least three times per year.

The ideal candidate will have:

- Experience as an editor and possibly as an author
- Good overall knowledge of the application of information technology to education
- Experience of the use of computers in the primary classroom
- The ability to work well as an individual and as a member of a team

The editor is paid £350 for each issue of *MICRO-SCOPE* and the appointment will be for two years in the first instance. If you would like to be considered for this post please send a resumé of your relevant experience to:

Les Watson, Faculty of Information Services, Cheltenham and Gloucester College of HE, The Park, Cheltenham, Gloucestershire GL50 2QF

If you would like to discuss the post prior to application Les Watson can be contacted by telephone on 01242 532968 or by e-mail at Les@chelt.ac.uk

The closing date for applications is 19th April, 1996

The hitch-hiker's guide to computers when they don't work!

Trevor Wright

IT Co-ordinator, Grove CP School, Melton Mowbray, Leics

The first rule is:

'Don't Panic!'

The second rule is:

'Alter one variable at a time.'

Hardware faults 1 – the computer appears not to be working

- Check that it is plugged in at the wall socket.
- Check that the RCD plug (circuit breaker), if fitted, is operating correctly.
- Check other on/off switches, eg on 4 gang sockets.
- Check computer is switched on at front/back/side.
- Check disc drive and/or monitor are also switched on.
- Check that all leads are plugged in and firmly seated.
- Check disc drive door is fastened, if appropriate.
- Check that the contrast control has not been turned right down so that you have no picture on the monitor.
- Check the fuses in the three pin plugs. Yes, all of them! But try the obvious ones first.

Hardware faults 2 – the computer is still not working after trying all of the above!

Now you need another identical computer that *is* working.

Remember – change only one thing at a time.

- Swap power leads, monitor leads, printer leads.
- Swap monitors over.
- Swap keyboards, mouse or disc drives.

This should enable you to isolate the problem. If the second system still works after all these changes see the IT Co-ordinator – it could be serious!

Software problems

These are identifiable by the fact that the hardware appears to be working (see above) but the software fails to load satisfactorily.

- Try the software on a second computer system.
- If it works, what are the differences between the two machines?
- If the software does not work, see the IT Co-ordinator or see below.
- In the case of the BBC is the drive on the right setting, ie 40-track or 80-track?
- In the case of hard drive machines, is the software trying to read the wrong drive, ie the floppy disc drive instead of the hard drive?
- With double drive machines, is the disc in the correct drive?
- In the case of a Nimbus 186 check if a 'silicon disk' has been set up and not removed. To check, re-boot the machine. (Press CTRL-ALT-DEL together and then release.) When the black screen appears, look in the box in the top left-hand corner to see how many drives are listed. If a silicon disk is listed, it will be the last one; it has to be removed.

See the IT Co-ordinator!

- In the case of an Acorn machine make sure a 'RAM disc' has not been created and then not removed. Check the icon bar for the icon which looks like a silicon chip and is named RAM. If it is there it needs to be removed.

See the IT Co-ordinator!

Printer problems

These can be quite difficult to solve as there are so many variables, as usual!

The answer to your problem(s) should lie in one of these three areas:—

- the printer.
- the printer driver – a piece of software to enable the computer to communicate with the printer.
- cables and connections.

If the printer is doing nothing:—

- check the printer by doing a 'test print'. This varies from printer to printer, but on Epson printers, for example, switch the printer off, hold either the LF or FF switch while you switch the printer on. It will print out all its characters. Switch it off to stop it. For other printers see the relevant printer handbook or your IT Co-ordinator.

If the test does not print:—

- check the cables are all connected and are seated firmly, then try to print from the software.
- swap cables from printers and computers that you know work, then try to print from the software again.

If none of these work see the IT Co-ordinator, it could be serious!

If the printer is printing something but it is rubbish or the paper doesn't move:—

- check that the software (the printer driver) is set up for that particular printer. It means either reading the manual or seeing the IT Co-ordinator.

- check that the DIP switches, usually at the back of the printer, although not always, are set correctly. Once again it means either reading the printer manual (not an exciting read) or seeing the IT Co-ordinator.

How can I avoid these situations with printers?

- Always save your work before you try to print it.
- Get your IT Co-ordinator to check that all your software with your computer prints out on your printer.
- Try not to swap different sorts of printers between machines, eg an Epson LX for an Epson LQ or a black and white for a colour printer.
- Try not to take saved work from one computer to another to print it out. Some programs, eg *PaintSpa* for the Nimbus, can get confused if there is a different printer on the other computer.

Editor's note: This article has been developed from an article by Roger Keeling in 'IT starts here!', *MICRO-SCOPE Special*, 1994.

Remember:

MAPE CONFERENCE '96 FORWARD WITH IT!

at the University of Reading
29th–31st March 1996

Prices held at 1995 levels!

For further details, contact:
Betty Lumley, 28 Westbury Road, Northwood,
Middlesex HA6 3BX

NEMA 94-95-96

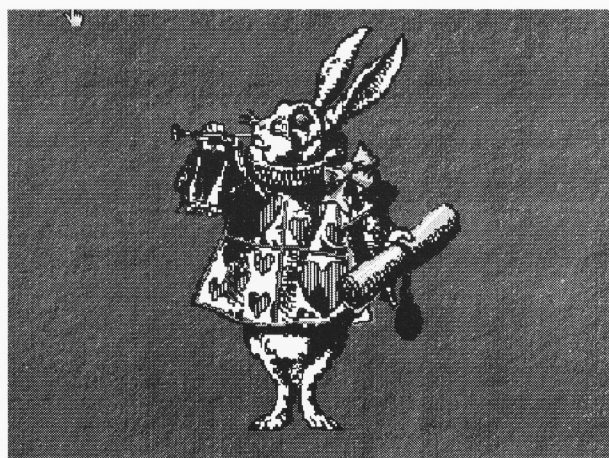
Barry Wake

Educational IT Consultant

If you sent away for the entry pack from NCET for the NEMA 1996 competition (as mentioned in NCET News, *MICRO-SCOPE 46*), then you can skip the following. If not, you may well need to hurry because the closing date is 31 March and you could miss out.

Firstly, you'd miss some excellent examples and tips for producing multimedia programs and secondly, an historic educational CD-ROM would pass you by. This year's full entry pack includes a CD-ROM with examples of the previous years' winners, which actually runs on three platforms: Apple, Archimedes and PC. Now that must be a first in itself!

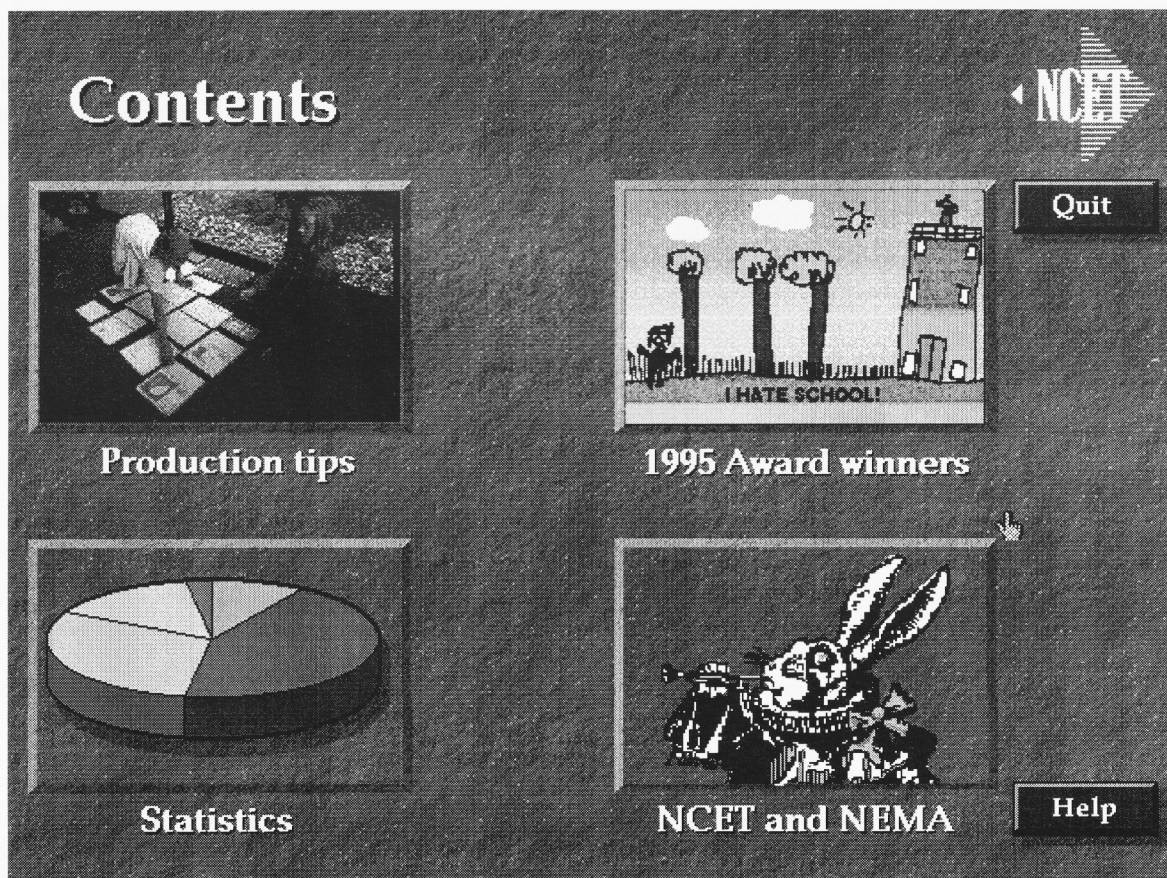
The National Educational Multimedia Awards have been organised by the National Council for Educational Technology for the last two years. The basic aim was to set up a competition to encourage the development of multimedia authoring tools in schools and colleges 'as an alternative way for pupils and students to present and communicate information and ideas'.

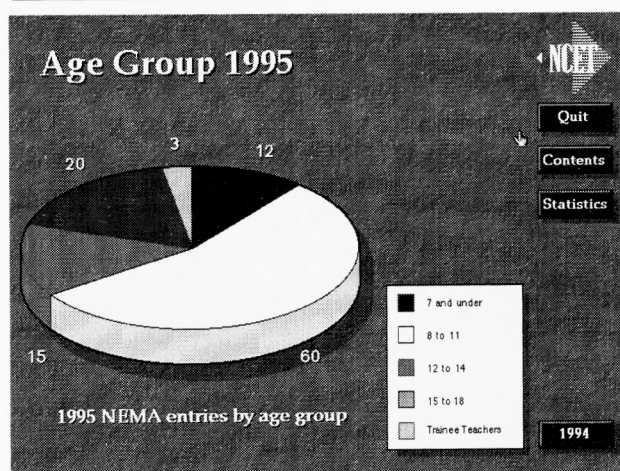


Some statistics

Perhaps two years is too short a time-span to draw any significant conclusions, but the statistics section on the NEMA CD-ROM gives a good indication about how fast educational multimedia is moving. In 1994 there were 82 NEMA entries. In '95 this figure rose to 110, just over a third more.

However, the greatest proportional increase was in the number of entries from primary children: from about half in '94 to more than two thirds a year later! After the first year's entries it was decided to split primary into two groups of younger than eight or between eight and eleven anyway. Even then, there were almost as many examples from primary





alone in '95 as the total number for all categories in the previous year.

Further statistics, also in the form of brightly coloured pie-charts, show the proportions of the systems and the authoring packages used. In '94, the top three platforms were IBM PC, Acorn and Apple (43%, 33%, and 18% respectively) whereas in '95, Acorn had jumped into the lead, followed by PC and Apple systems (55%, 26% and 19% respectively). These changes were reflected in the authoring packages used, with *Genesis* and *MM-Box* being the top two in '94. In '95, *Genesis* was still the favourite but now with *Magpie* in second place. *MM-Box* was pushed way down the list, which was in any case longer than last year's and now included others such as *Hyperstudio*, *Illuminatus*, *Optima* and *Visual Basic*.

In terms of where the entries came from, English schools sent in by far the most in '94, with Wales in second place but actually putting in *pro rata* a very high number of entries. Surprisingly though, in the following year, English schools had increased the number of their entries by well over half. Welsh entries were almost exactly the same, but Northern Ireland and Scotland entered fewer with only one example each! At another level, South Glamorgan and Hampshire head the lists of entries, numerically speaking, for both years, which gives an indication of their strength of interest in this area of IT.

Sponsorship and prizes

On the other hand, quality and quantity do not necessarily correlate, and the CD-ROM itself does not state how many winners came from where. Over a third of all entries in both years won either an award or a commendation which means an awful lot of prize winners dotted about the UK. NEMA has been very fortunate in its support from a wide range of companies with interests in multimedia. Last year eight major firms offered sponsorship and

prizes, with additional prizes from another twenty-three. The award ceremony itself took place at the World Conference on Computers in Education in Birmingham, and was hosted by Dominik Diamond.

Topics chosen

The subjects selected by the entrants across the age ranges are also given the pie-chart treatment according to various categories, from school prospectus to local guides, and from games to stories. Quite a few entries dealt with specific, single topics not obviously related to 'school' or the other categories. The proportion in this 'miscellaneous' group actually came out at about a third for both years running, and that of 'stories' remained a constant 10% too, though the 'games' category rose from two to twelve entries! Items along the lines of 'This is Our School' or school trips and activities fell over the two years but there was a large increase in the category of local guides and topics, from a fifth to almost a quarter of all entries, indicating an increasing willingness and a confidence in using multimedia to present ideas and information in a new way.

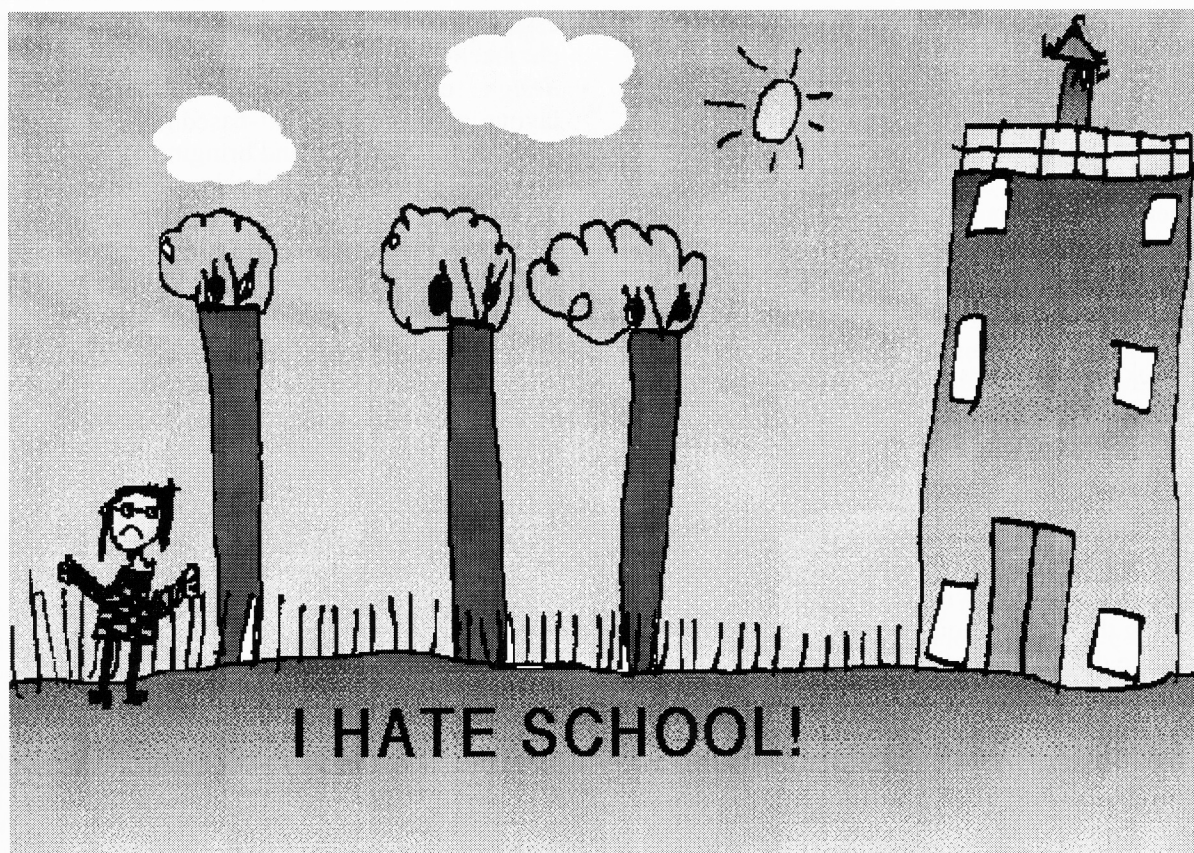
Examples of the entries

In another section of the NEMA CD-ROM you can see sample screens of some of the 1995 winners from three of the categories. This is accompanied by a very clearly spoken commentary giving some of the background and also useful clues as to what the judges thought. You can even 'play' a couple of sample scenes, giving a good indication of how the whole production worked, often with some of the original sound clips too.

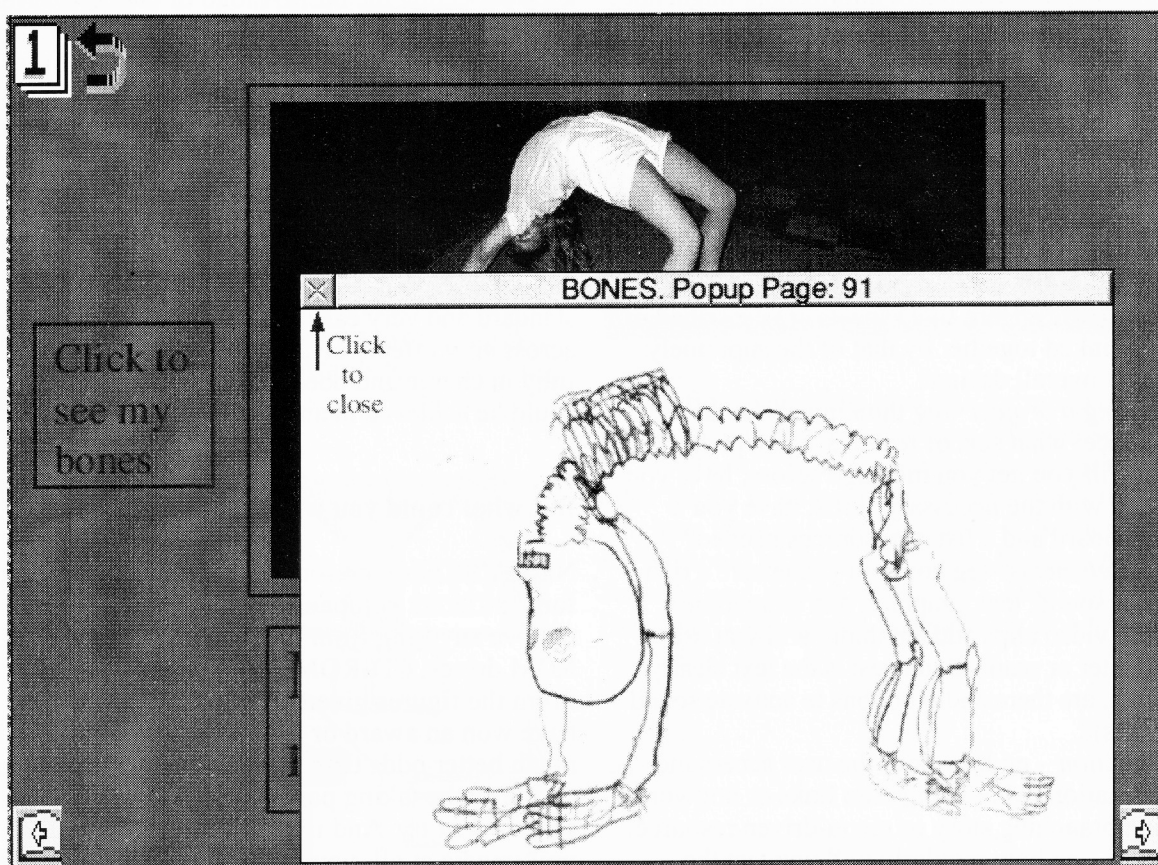
It is hard to choose examples even from the selection on the CD-ROM, but a firm favourite was the humour, attention to detail, excellent graphics and good story-line in 'I Hate School!'. This was produced by six pupils, aged six and seven, from Inverkeithing Primary School about the sort of character probably too familiar to many teachers!

'Bones', by a class of seven year olds from Northgate Primary, was another winner. A very well structured, non-linear resource package with high quality drawings, well designed screens and artwork by children, it incorporated photos, audio clips and text too, covering a wealth of information but all combined with a sense of unity and purpose.

Another excellent, non-fiction winner came from 24 children aged ten and eleven at Brookhouse Primary. 'A Guide to Islam' was also very well designed, giving clearly and precisely a good deal of information about the culture, history



'I hate school' by Inverkeithing Primary School.



'Bones' by Northgate Primary School.

and beliefs of Islam mixing photos, text, drawings and spoken commentaries with a clever quiz at the end where correct answers allow you to build a mosque section by section.

Yet another, by 22 eight and nine year olds from Ysgol Bro Eirwig telling their story in Welsh about 'Capten Harri Morgan' had some stunning artwork.

Tips on design

The booklet that comes with the CD-ROM gives a list of tips for making multimedia. There is general advice on selecting a balanced team of contributors, making sure the project is manageable, and ensuring a harmonious mix of multimedia elements. Screen design and ease of navigation are also vitally important points, as well as putting the user in control by allowing different ways of accessing the information.

A quite detailed set of criteria for judging the entries is also there. For instance, the production should be interesting and enjoyable, as well as original and imaginative. It has to be well designed with a suitable balance of elements, easy to read and to use, interactive where appropriate, with a style that matches the content. Clearly, any factual content has to be accurate and the message got across.

One might argue with some of the criteria. For example, 'a uniform depth of information' might not allow for much differentiation from the user's point of view, but you can see what they are getting at.

Above all, however, there should be a good mix of elements, demonstrating particularly the 'added value' of what multimedia offers. The bottom line is that the production should go 'beyond what could be achieved in other media' (!)

This advice is backed up on the CD-ROM with explicit examples taken from some of the 1994 winning entries. Here five aspects are described, visually linked together by that of the supremely important overall design:

- *planning a project* – eg thinking about the audience; what sort of features you will use; how will you get your message across; have you a team with the necessary skills; have you a story-board and a list of resources needed?
- *media elements* – eg how can you ensure a rich mix of sound, text, graphics, and animation; would video clips add anything; will you use computer or scanned images; is the text clearly legible; are there audio buttons to activate sound (effects)?
- *interaction* – eg how does the user access the information; what navigation links or hot words; is it a branching story or menu-driven resource?
- *testing* – eg how regularly will you test the production as it develops (very important);

especially with the target audience and on different machines?

- *design* – eg using clear features and consistent layout, going beyond text-based material or any other single medium, and bringing all four aspects together into a cohesive whole showing the 'added value' of multimedia.

It is hardly surprising that some LEAs have actually been asking if they could have more than one copy of the CD-ROM to support their own multimedia professional development courses!

The NEMA CD-ROM itself

And what if this CD-ROM were entered in a NEMA competition? Well, it would have to be up there among the winners somewhere. The whole package is well designed and well structured, and very pleasing in appearance. The navigation through the various pages is easy and quick, and you always know where you are. The screens are well laid out, with good, strong colours on a grey, mottled background. The text is clear, easy to read, and without too much information on any page. You know what is 'clickable' too by the visible changes in the hotspots. There is appropriate use of sound from audible 'clicks' to confirm your actions to a very clearly spoken commentary. Mind you, I keep expecting the NEMA logo of the herald from Alice in Wonderland to sound out at least a few blasts on its trumpet!

In the information sections on NCET and NEMA you cannot navigate back a page at a time. You can only interrupt the spoken commentaries and continue, or go back to the start. But there are only a few pages so that does not take long anyway.

All in all, a well presented production: no bells and whistles, but clear and succinct, of a high standard and very easy to use. It gets its message across very effectively, generally leaves the user fully in charge and does indeed go beyond what could be achieved in another medium.

But what could you win?

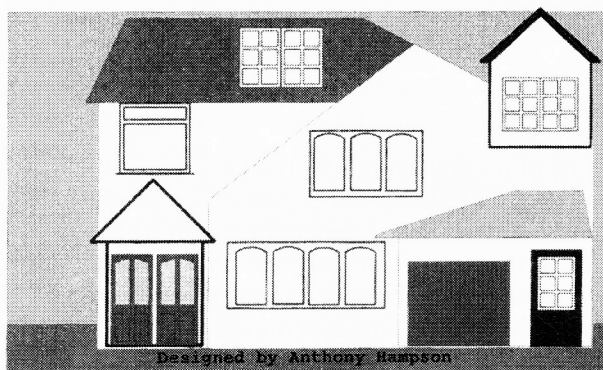
NEMA '96 has sponsorship and prizes from some forty different companies, so the winners could receive anything from hardware to software, CD-ROM drives, CD-ROMs to sound equipment. From the figures given, over a third of entries have won an award or a commendation, which is much better odds than the National Lottery. In any case, it's the taking part that counts, as they say – so give it a try. And if you are interested in multimedia at all, you really should send for that entry pack anyway!

Building on IT skills

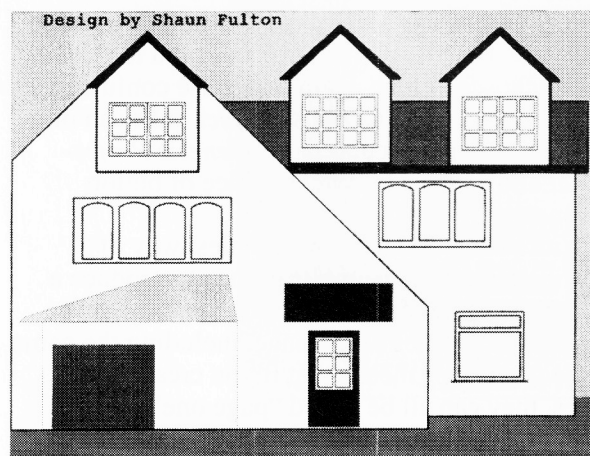
Graham Dean

St Barnabas' School, Darwen, Lancashire

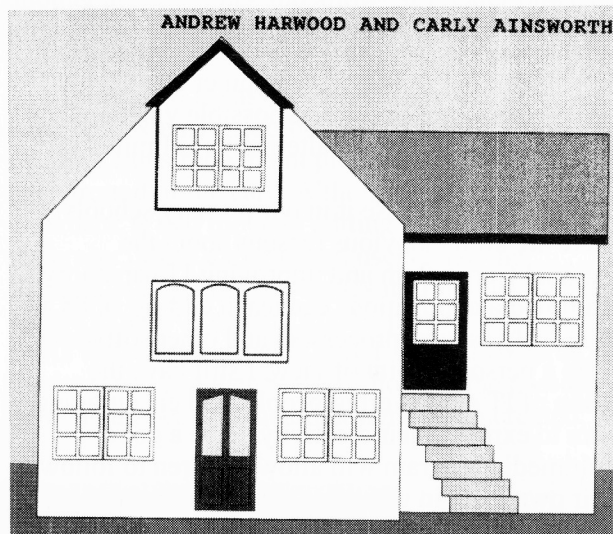
It has been fairly common practice to ask older primary pupils to write stories suitable for younger pupils, thus providing a real audience for their work, rather than setting just another exercise for which they can see no obvious purpose. We decided to extend this principle to IT by asking Year 6 pupils to create resources for use by younger children – while they were doing this, they would be increasing their own IT capability. It was against this background that we planned an Education Partnership/Construction Industry Training Board bid last year.



My World is one of the most used computer applications in schools. Producing home-made screens for use with the program, using Acorn's *Draw* application, is not too difficult. Devising a screen with a house shape, and a choice of such components as doors and windows, would allow children from Key Stage 1 upwards to design the front elevation of a house – a sort of computer screen construction kit.



The pupils from Year 6 commenced their task by photographing houses on three recent developments near to school. The resulting slides were transferred to Photo CD, converting them into a format which we could import into the computer drawing package. Pupils used their chosen photograph from which to trace either the house outline, or a component such as garage, door, window, etc. It was during this part of the project that the C.I.T.B. funding was mainly used – so that the pupils working at the computer could have much more teacher support than would normally be possible in a class teaching situation.



The final part of the task was for me to organise the computer drawings into five different screens for *My World*. These are now available for use by other pupils in school – and other schools may also purchase them at a nominal price. (Cheques for £2.50 should be made payable to *St Barnabas' School Fund*, and addressed to G. Dean, St Barnabas' CEP School, Knowlesley Road, Darwen BB3 2JA.)

Quadromedia

A closer look at four multimedia programs

Philip Griffin

IT Co-ordinator, Radstock County Primary School, Reading

Multimedia is one of the buzz words of the moment, second only to Internet in its connotations. Many new computers are advertised as "multimedia"; we are encouraged to enter our "multimedia applications" for the annual NEMA (National Educational Multimedia Awards). But what is multimedia, why use it, and which program is best? This article attempts to answer the third of these questions for Acorn computers.

Multimedia, as far as present computers is concerned, is a collection of text, images and sound put together in an organised way in a computer program. This is the sense that a computer-based encyclopedia is multimedia whereas a traditional paper based one is not: the computer encyclopedia has at its disposal sound and possible video, whereas the paper-based alternative is limited to text and images.

Why should we use it in our primary schools? There are all the obvious reasons about the National Curriculum and improving IT capability. Multimedia applications can teach editing skills as effectively as wordprocessors and other software. From a personal point of view, I still have the vision of IT empowering people, and encouraging them to express their creativity. Here a good multimedia program will allow children to follow their own lead, in whatever media and area of interest they have. Finally, the organisational skills learnt here will be of benefit even when the software that is in use at present looks as archaic as a Sinclair ZX80.

The programs that were reviewed were *Genesis*, *Hyperstudio*, *Magpie* and *Ultima*. Of these, *Genesis* and *Hyperstudio* are also available for other platforms, *Genesis* for PC and *Hyperstudio* for PC and Mac. The benchmarks used for the four programs were ease of use, handling of different types of resources, editing a completed application and ease of use of searching completed applications.

All four of these programs have a similar basis. They all consist of pages or cards of resources (text, pictures, etc.) usually placed in frames. Some of these are then linked to particular actions, in the form of buttons. The most common action of a button is to turn to another page or to play a sound

when the select button on the mouse is clicked over it.

All the programs import information in the basic Acorn file formats. They do not import more exotic formats or formatted text from wordprocessors. To see how well each responded, one page of an application was created using each of the four packages. This page contained a picture from *Treasure Chest*, some text from *Heinemann Encyclopedia*, a title and a button to turn to the next page.

Genesis

Alone of the four programs, *Genesis* has no toolbox. It is entirely dependant on its various menus, which change depending upon where you click. It is also a frame-based program, so before any resources can be added to the page, frames have to be drawn. This is achieved by clicking select and dragging. This procedure can cause some confusion for children, as they tend to click but forget to drag. Once created, frames can then be resized, using adjust, or moved, using select, and the surrounding border altered.

Genesis only allows you to add text from the keyboard; all other information, including sound and graphics, has to be found elsewhere and then dragged and dropped into the frames. Within a frame, it is possible to change the style of the text, and to add a scroll bar for text that would otherwise extend beyond the frame.

Linking a frame requires the menu button to be pressed within the particular frame, and the linking option chosen, which again can cause confusion with children. With *Genesis Project* links can only be created to a particular page. *Genesis Professional* allows for a far wider choice of button actions.

With young children, the simplest way of creating a multi-page application is to produce a master page, and then copy it. *Genesis*, however, makes exact copies of the page, including the name of the page. This means that if you create five pages, they can all be called "page one"!

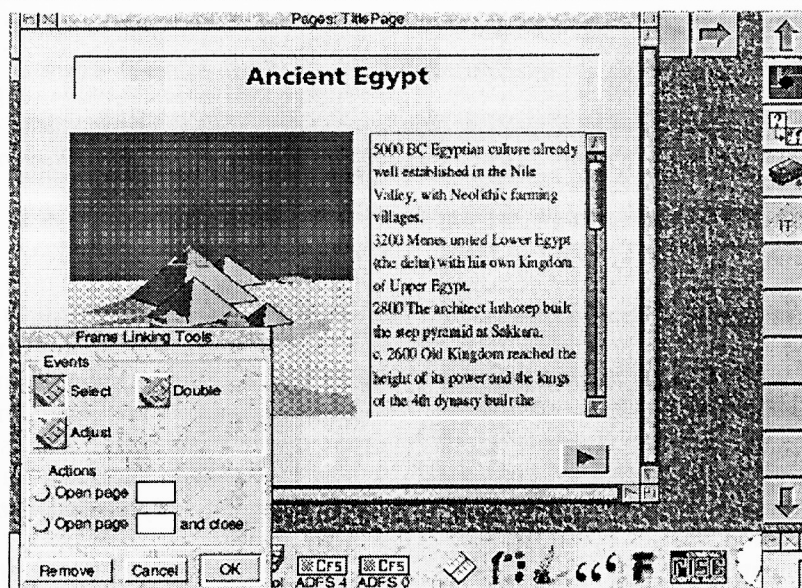


Fig. 1. The sample page in Genesis.

Genesis allows no editing of the application as a whole: extra pages cannot be inserted in the middle. *Genesis Professional*, however, has some additional features, including limited editing of the entire application. Most importantly, Professional allows access to the *Genesis* script language which means that experienced users can create pages by typing in commands.

Hyperstudio

Hyperstudio is unlike all of the other multimedia applications reviewed here, as it relies on a stack of cards rather than related pages. The practical effect

of this is that transitions between one page and another are smoother and allow far greater range of effects, such as opening doors, guillotine cuts and venetian blinds.

Hyperstudio is easy to use, in part due to its large and extensive toolbox. At an initial level, children can simply paint pictures and text onto the background of the card. Although easy to use, the drawback is that the only editing possible is with the eraser. More experienced users have the alternative of putting resources into frames, which allows extensive editing to take place.

As well as stacks being saved, individual cards can be saved and then reused, allowing the possibility of a number of standard designs being created.

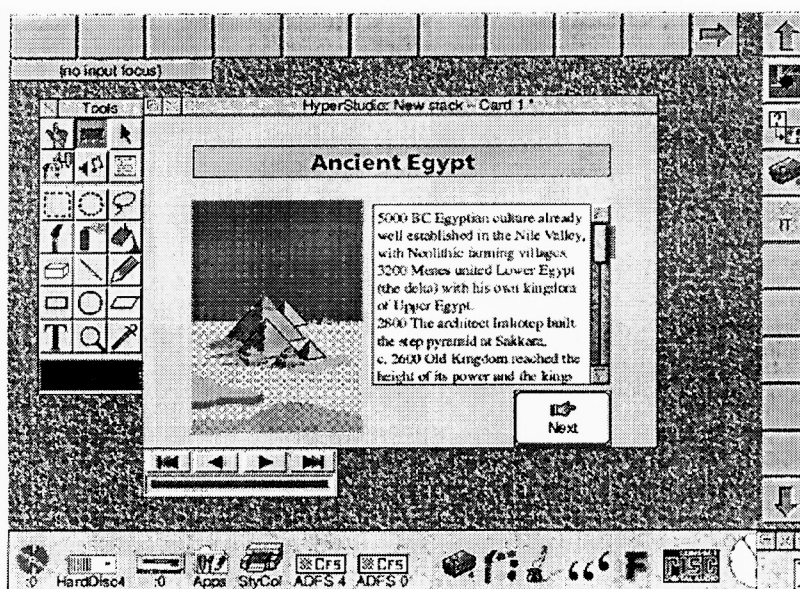


Fig. 2. The sample page in Hyperstudio.

Text handling is very good, with *Hyperstudio* having a far greater range of text formatting than any of the other programs. Text styles and colours can be altered within frames and between words. Text can be put into scrolling frames, and even ones which automatically scroll, in the same way as the credits on a television program.

Hyperstudio handles graphics as capably as any of the other programs. There is a clipart directory accessible from the menu of the program, and graphics can be rotated as well as resized within frames. *Hyperstudio* also allows a great range of button actions. As well as being able to move to any other page, it is possible to move to a different stack and to the last and previous pages. This is important when editing page order, as it enables the links to remain intact even when the page order is altered. Buttons are created in a very visual and user-friendly way, and can be of any size and shape, including lassoed areas and areas created with a fill option.

Buttons also give access to other important features, such as sound. Integral with *Hyperstudio* is a cassette recorder which will allow sounds to be recorded if a suitable microphone is connected to the computer. Animations are also possible from the button menu. Any series of sprites which are slightly different from each other can be used to create an animation. There is also a complete Logo language (not just turtle graphics) accessible from the buttons. This can be used in its own right, or can allow a button to action a logo procedure, such as to draw a square in the centre of the card. Finally, there are new button actions. These allow extra utilities to be added to *Hyperstudio* by software developers.

Hyperstudio can alter the order of pages within a stack quite easily. Minipictures of all of the cards are displayed, and these are then dragged to change the stack order. Editing of all items is easily undertaken, and full text search facilities are inbuilt.

Magpie

On starting *Magpie*, the binder is entered rather than the first page. The binder is the main organisational device of the program from which pages can be grouped, created, copied and moved. This important editing function allows the application to be edited even at an advanced stage. The binder, shows, however, only the page numbers and not their contents.

Once a page has been created from the binder, resources are added. Skeleton pages can be created and then used allowing different pages to share the same layout. A toolbox is provided, with a basic set of tools which allows the creation of both frames and some simple graphical devices such as boxes and lines. Many of these tools will be familiar to users of other Longman Logotron products such as Junior Pinpoint.

To enter text, a text frame has to be created. Once this has been done, text can be typed in directly or added as an edit file from a different application. Unfortunately, *Magpie* does not appear to recognise returns in text files introduced in this way. *Magpie* allows some text formatting in that the style of font used in paragraphs can be altered, but there is no option for centring text or having text placed in frames with scroll bars. An option for searching text is available.

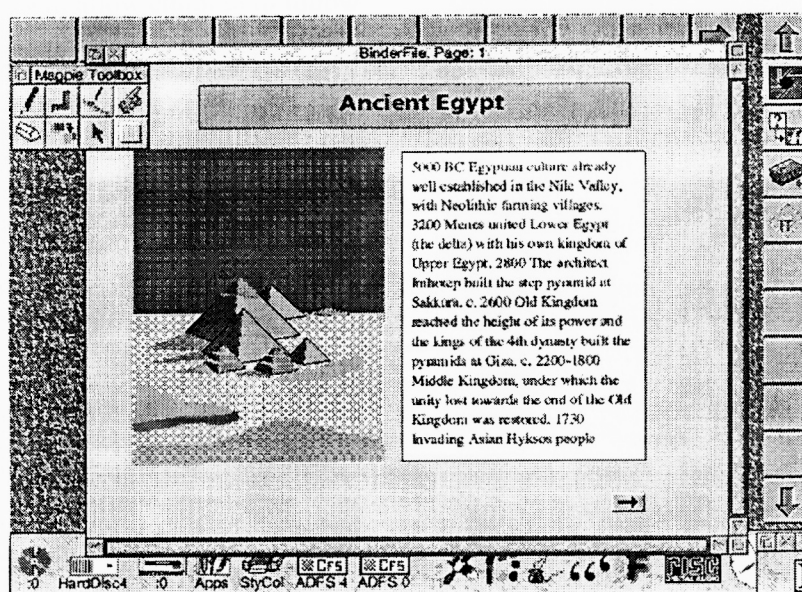


Fig. 3. The sample page in Magpie.

With *Magpie*, graphics and sound are simply dropped into the appropriate type of frame. In the case of graphic frames these may then have to be resized. With sound frames, an icon appears to show that it is a sound. A cassette recorder is also available which allows internal recording of sound if a suitable microphone is attached to the computer. Buttons are created by clicking on the button icon on the toolbox, clicking on the appropriate part of the page and choosing the appropriate actions.

Ultima

The final package, *Ultima*, is both the easiest and the hardest to use. Once you have created the first page, resources can be simply dragged and dropped onto the page: There are no frames to worry about. The toolbox although not extensive, has the necessary features. Text can be typed in easily, and its font size and alignment altered. Sometimes, however, the dragging and dropping of resources can lead to disconcerting effects.

Two instances of this. First, if you drag and drop a very large graphic onto the page, the resizing points (as in draw, the bottom right hand corner) is off the edge of the page by a considerable margin. It can then be quite difficult to move it so that the resource can be resized. Even worse is the text handling. *Ultima* can only accept lines of text if there is a return at the end of each line. Having spent years trying to stop children from adding a return at the end of their wordprocessing, this is a disappointment. *Ultima* did not like accepting information from CD-ROM; both the picture and the text in the example had to be saved to hard disc before being loaded into *Ultima*.

There are good features though. There is a sound and picture library which is accessible from the toolbar. This shows minipictures of all the images, which can then be dragged onto the page. The sound library does not show pictures of the sound, of course, but names them. Pictures or sounds dragged onto the page are immediately added to the list.

Buttons are easily added, but instead of to a frame, they are attached to the resources. A full choice of actions can then be linked to each object on a page. The menu here is clear, but entirely text based and rather forbidding for children.

Ultima handles sound in a different way from all of the other applications. With *Ultima*, it is necessary to record individual words rather than sentences. This helps in that if the same words are spoken many times, the amount of space required is smaller, but the disadvantage is that many individual words have to be spoken. To link a sound to a word, all that has to be done is to drag the appropriate sound onto the appropriate word.

As with *Hyperstudio*, *Ultima* can create simple animations, but it cannot access an audio CD in a CD-ROM drive as the other applications can. Master pages cannot be created either, and as with *Genesis Project* there is no overall editing tool; you can only add pages and then alter connections. Unlike the other programs, *Ultima* can save the files created as independent applications which do not need *Ultima* to work.

Recommendations

All these items of software are capable in their own niche. *Hyperstudio* is, however, my current favourite, simply because of its ease of use and

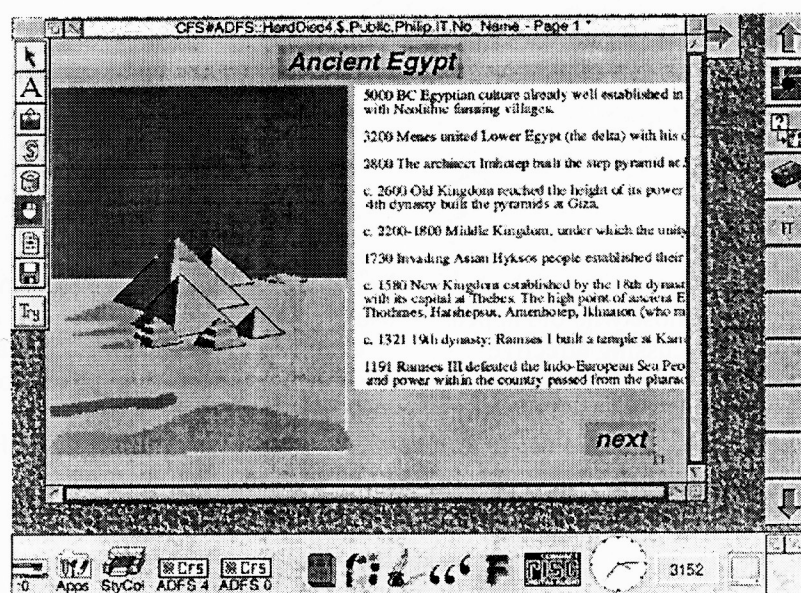


Fig. 4. The sample page in Ultima.

simple graphical interface. It has far more features than any of the other programs. Indeed, if you could only purchase one piece of software for your computer to fulfil as many educational needs as is possible, then *Hyperstudio* would be the one to purchase. Its drawback is its cost and licensing arrangements.

Ultima, on the other hand, is cheap and works well, particularly for talking books. Its is not so suitable if the applications to be made rely on importing text from elsewhere.

Genesis is now beginning to look rather old. Nevertheless, it produces applications which look cleaner and more refined than the other packages. The script language available in professional make it the choice of those who wish to produce applications as a resource for others. My experience is that children find *Genesis* quite difficult to use.

Magpie is a good all round program, which has the editing facilities which *Genesis* lacks. It also has the advantage that those already used to using Logotron products will immediately understand the way in which it works.

Project information

Genesis

Genesis Project

Single copy or primary site £50

Secondary site £200

Genesis Professional

Single copy or primary site £120

Secondary Site £480

Oak Solutions

Dial House, Chapel Street, Halton, Leeds LS15 7RN;

Tel: 01132 326 992; Fax: 01132 326993;

e-mail: us@oakltd.demon.co.uk

Hyperstudio

Single User £99

Five User £299

additional copies £37

TAG Developments

25 Pelham Road, Gravesend, Kent, DA11 0HU;

Tel: 0800 591262; Fax: 01474 537887;

e-mail: info@tagdev.co.uk

Magpie

Single User £59

Primary Site Licence £190

Secondary Site Licence £330

Longman Logotron

124 Cambridge Science Park, Milton Road,

Cambridge, CB4 4ZS; Tel: 01223 425558;

Fax: 01223 425349

Ultima

£49

SEMEREC

1 Broadbent Road, Watersheddings, Oldham, OL1 4LB;

Tel: 0161 627 4469; Fax: 0161627 2381

Chiltern region news

The meeting on 3 February was very poorly attended – where were you? Those who did appear had a worthwhile morning discussing effective ways of delivering and organising IT with Sheila Wilson and Jan Young.

Our next session is on **15 June, 9.30–12.00 a.m.** at **Hatfield**. We will have experts in the field to

lead the session and times for hands on after the usual coffee break.

Come along – we normally charge £4 but for this event it will be two for £5, so why not bring a friend.

For more specific details ring Betty Lumley, Tel: 01923 823411.

IT scheme of work

(the Wiltshire way)

Reg Eyre

Curriculum Support Teacher for IT

Is it good for *all* primary schools to prepare schemes of work for *all* national curriculum subjects? Do they have the time to do this? Who can schools turn to for help with these sorts of activities?

Schools generally do not have to look to their local advisory services for help with planning their policies and schemes of work. We felt that since we had already had a major say in the equipment they had purchased, the software they used and the guidance through courses we had organised over a period of time that we should put out some guidance.

IT is a different subject to most of the others in that it is not really a subject in its own right but rather a tool to be used in the support and enhancement of the whole curriculum. It would also be true to say since IT is a relative newcomer to the curriculum, there is probably less staff expertise than is the case with more established subjects.

The document we have produced for Wiltshire schools may appear to be a little prescriptive but since the IT resources to be found are fairly uniform, the resource guidance suggestions are likely to exist already in our schools.

Our document comes in two parts, a 32-page booklet and a pull-out section. The main document is targeted at the school IT coordinator and contains a full justification and rationale as to why the various strands of IT exist, the concepts to be mastered for each strand and a year by year suggestion of activities for each strand. The pull-out section contains three sheets which can be duplicated for all staff. These sheets have been designed so that the IT coordinator can lead a staff meeting and show how IT activities can be organised as a year planner, how IT activities can be assessed and which resources can be used. Obviously, schools are encouraged to adjust these suggestions to fit into their own unique situations.

		Teacher's activity sheet					
		Reception/Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Communicating information	Building a scene: sentences using a Concept keyboard	Writing poem/story using word bank/notebook based on topic vocabulary	Writing a story then recasting it into a play for assembly	Creating and publishing a one-page news-sheet, text only	Incorporating pictures into text on screen to illustrate an account e.g. the life cycle of a frog	Working in groups (4-6) to design and publish the school newsletter	
	Creating pictures based on topic content	More purposeful pictures (see Art Order)	Changing colours of a picture to change mood, time of day, reality into fantasy	Bringing text and pictures (clip art or work previously created and saved by children) together on screen to make posters	Creating a story board book for younger children	Modifying scanned images	
Handling information	As a class, making a count graph for a wall display, using pictorial symbols. (Pre-computer work.)	Using the computer to draw and print count graphs, sorting the columns into ascending/descending order	Investigating possible links between headings in a datalife e.g. do larger birds lay more eggs?	Entering results of a class survey into a datalife: looking for patterns and relationships e.g. boy/girl preferences for shoe fastening	Checking data for accuracy using spreadsheet prepared for datalife to test for numerical relationships e.g. what makes a good runner?	Carrying out the entire process: identifying a need, designing a file, collecting data, entering and saving, checking accuracy and presenting and reporting	
	Sorting the data which is in ascending/descending order	Sorting the data which is in ascending/descending order	Making a case, using information to support your argument	Writing and testing a set of commands to control one aspect of a model e.g. the lashing of a lighthouse, lifting a weight by a crane, shutting a door	Programming a screen turtle to draw a shape of specific size using the REPEAT command	Writing and testing a set of commands to control a number of outputs e.g. a traffic light sequence	
Controlling	Exploring the environment using the floor robot with single commands	Moving the floor robot up and down a number line or around a floor plan using single commands e.g. delivering the mail	Writing down instructions based on measurements or estimates, programming the floor robot with the complete sequence, testing and refining	Using a single sensor to detect an event e.g. a pressure pad to detect someone's presence	Using a sensor to monitor changes over time e.g. temperatures in an incubation experiment, motion using a sensor	Changing the number typed in to a teacher-prepared turtle graphics procedure to explore the effect on a drawn shape e.g. how do POLYGON 60 and POLYGON 90 differ?	
	Talking about everyday objects which are controlled by sensors e.g. supermarket doors, classroom temperature controller, movement sensor in a burglar alarm	Using an adventure game in a more systematic fashion, using progress, drawing maps	Changing the number typed in to a teacher-prepared turtle graphics procedure to explore the effect on a drawn shape e.g. how do POLYGON 60 and POLYGON 90 differ?				

Our publication aims to cover three key areas:

1) Planning for balance and coverage

The terse statements in the Programme of Study give little help to the teacher in identifying a suitable activity and the *scope* of that activity. For example, the statement “b enter and store information;” is singularly unhelpful.

In the ‘Teacher’s activity sheet’, we have tried to amplify such statements and give a better guide to what might actually go on in the classroom. The accompanying ‘Teacher’s resource overlay’ (designed to fit over the activity sheet) lists appropriate software and some suggestions for further reading.

2) Ensuring progression and continuity

In the main booklet we have given an extended commentary on each IT strand to bring out the essentials. After stating a rationale for the strand, we set out a progression of concepts and a year by year analysis.

3) Making informed and reliable summative assessments at the end of a Key Stage

The level descriptions in the revised Order are an attempt by SCAA to establish a holistic approach for making summative assessments at the end of a Key Stage. As an alternative to this unworkable system, we offer the ‘Pupil’s IT record/assessment sheet’. The record sheet is comprised of statements which we have devised to try to match the level descriptions in the revised Order. Each statement is specific enough to guide the non-expert – but broad enough to admit a range of activities.

The ‘Teacher’s activity sheet’ and the ‘Teacher’s resource overlay’ are set out in years – since planning is time-based.

The ‘Pupil’s IT record/assessment sheet’ is set out in levels – as assessment is level-based.

This publication can be purchased from: Kevin Gale, WEST Publications, County Hall, Bythesea Road, Trowbridge, Wilts., BA14 8JB for £7.50 plus p&p. (01225-71 3844)

		Pupil's IT record/assessment sheet				
		Level 1	Level 2	Level 3	Level 4	Level 5
Communicating information	I have used the mouse and/or a Concept keyboard to build up a scene or a sentence.	Signed..... Date.....	I did some writing on the computer. I painted a picture on the computer.	Signed..... Date.....	I have refined my work by using the editing process of working, saving, printing, discussing changes, re-loading, amending etc.	Signed..... Date.....
	I can make the floor robot move by giving it single instructions.	Signed..... Date.....	I saved, printed and re-loaded my work, with help, so that I could continue with it later.	Signed..... Date.....	I have combined writing and pictures electronically in a piece of work meant for a particular audience.	Signed..... Date.....
Handling information	I can use a prepared computer database to display, interpret and information to find out the tallest, the most common etc. I have used the computer as a tool to classify objects e.g. according to hair colour etc.	Signed..... Date.....	I can use a prepared computer database to find out the answers to straightforward lines of enquiry, such as who has hazel eyes, which dinosaurs ate meat etc.	Signed..... Date.....	I have added my information to a (prepared) computer database and corrected any errors. I realise that being able to get the answers I want depends on accurate data arranged in a sensible way.	Signed..... Date.....
	I have given step by step instructions to the floor robot to make it move in a particular way I can teach it to do sums along a number line.	Signed..... Date.....	I can give the floor robot the complete set of instructions, then make it follow a whole route in one go.	Signed..... Date.....	Through class discussion, I helped to work out what information we needed to collect so as to be able to answer our questions. I helped to collect, input, store and check the data.	Signed..... Date.....
Adventure game	I can say what will happen when I make a decision in an adventure game.	Signed..... Date.....	I can program the floor robot/ screen turtle to draw a specified sized shape without having had to try out individual instructions beforehand. I can program a straightforward sequence (e.g. traffic lights) using a control box.	Signed..... Date.....	I can program a more complicated sequence (e.g. a burglar alarm etc.) using the control box with several procedures.	Signed..... Date.....
	I can record the necessary information on a map/plan to help me to solve an adventure game. I can explain the consequences of choosing different options.	Signed..... Date.....	I can use simple input switches to cause an event to happen (such as trigger an alarm). I can use a (motion/light/temperature) sensor and interpret the graph produced on the screen.	Signed..... Date.....	I can set up a box with two sensors with an experiment.	Signed..... Date.....

Mapping IT – part two

Reg Eyre

Curriculum Support Teacher for IT, Wiltshire LEA

In the last edition of *MICRO-SCOPE*, (number 46), I outlined how we were about to use Ordnance Survey map data, held electronically by our County Hall Highways and Planning Department.

Our County Hall only received the complete data set from Ordnance Survey during August. The software to convert the data to Archimedes format arrived early in September and the first course took place in mid-September. This was a tight schedule!

I can now pass on to you the lessons we learned from running several courses on generating maps using NTF data.

Lesson One

Our County Hall quoted us £7.00 per tile on a disc. A tile is one kilometre square and if the school is placed in the middle of the square, it will also show the houses near to the school which we can assume is the catchment area.

Problem:— The new lottery law states that no school will lie in the middle of a square. Rather, it will be perfectly placed in one corner, so that the school will need four tiles for £28.00. Even worse, for rural areas the catchment area will be greater requiring even more tiles, while for urban schools, the tiles are split into NE, NW, SE and SW tiles. In other words, your costs in obtaining the tiles/maps you require will be four times what we thought.

Some Authorities make no charge while others charge more than we have been quoted.

Lesson Two

A course for teachers has got to include a substantial time element for getting used to using the *!Draw* program. When working with children, I usually use the *Just Pictures* discs from SEMERC to show how we can use the *!Draw* program to group pictures together to form a scene which we can then write about. Alternatively, we look at how we can 'ungroup' a picture to show the process of 'layering' clothes when looking at how the Victorians dressed, or how a Roman Centurian might choose to dress for different times of the day.

The course notes we have written include a section on using the *!Draw* program to create maps of our classroom or bedroom so that we can become familiar with the facilities offered by the program before we start using the maps.

Lesson Three

Map Importer is not necessary once the data file has been converted from NTF to Archimedes format. To save buying the program, teachers could go on a course at their local IT Centre, use the program to convert their data and come away with the appropriate *!Draw* files.

Lesson Four

Some schools wish to use the data on IBM computers. We have recommended to our secondary schools that they use *Aegis* which is a Key Stage 2/4 piece of software and will do far more than the primary school teacher will want or need to do. It will convert the NTF data which can be used to investigate maps electronically as we did before and it includes useful facilities such as rulers for measuring distances and areas. However there is much more besides, including regional population statistics, regional unemployment statistics, etc. The Archimedes version of *Aegis* will be ready by February and includes useful documentation and teaching ideas.

I hope the above is of some use to schools who wish to make use of the data held by their Local Authorities to enrich their learning about their local environments.

Product information

Just Pictures – SEMERC Catalogue

Map Importer – Minerva Software

Aegis – AU Enterprises

Generating Maps Using NTF Data – Martin Turnbull,
Geography Adviser, County Hall, Trowbridge,
Wiltshire BA14 7JN; £2.50 inc p&p.

MAPE/Longman Photographic Competition

Theresa Mungall
Scottish MAPE

Scotland comes out tops again! The winning school in the MAPE/Longman Photographic Competition was Laurencekirk Primary School. Laurencekirk is a small town in Grampian Region between Dundee and Aberdeen. It is in an area called the Mearns, firmly placed on the map by one of Scotland's famous authors Louis Grassick Gibbons. Rich farmland, scenic routes and the nearby rugged coastline in that part of Scotland provided the subject matter for the winning set of photographs.

Andy Hall, at the time of the competition, was Deputy Head of Laurencekirk Primary. It was his

main leisure interest in photography and his encouragement of pupils to take photographs that created the standard of the photographs submitted. Most of the winning photographs were taken in the area surrounding Stonehaven which is a picturesque, one-time thriving, fishing port. Some, however, were taken during a holiday in Yorkshire. (Some credit to our English neighbours?)

The prize of a Cumana CD-ROM drive was presented to a proud and very pleased Andy Hall and group of pupils during the School's end-of-term assembly last October. The whole school was delighted with the rewards of their talent and very happy to be able to benefit from this highly desirable prize. The prize was presented by Theresa Mungall, one of MAPE's Scottish Representatives.

Andy did not get much opportunity to investigate this newly-acquired piece of hardware. The day after the presentation he moved school to take up post as Head Teacher of Netherley Primary School. Andy did get a copy of the photo CD to take with him to his new school. Thanks to Roger (Keeling).

Since October the CD-ROM has been in constant use in Laurencekirk. One of the teachers, another keen exponent of IT, has taken up where Andy left off ensuring that the new equipment is being used to the full.



Theresa Mungall, Andy Hall and Risc PC with prize CD-ROM installed. With thanks to Clark Photographers, Laurencekirk.

Becoming actively involved in MAPE

Les Watson
National Chair

I thought it might be useful for new members, and a useful revision exercise for existing members, if I outlined how MAPE works and how members can become actively involved with the work of the organisation.

The Aim and Structure of MAPE

MAPE is a registered charity which aims to advance education by promoting and developing the awareness and effective use of microelectronics as an integral part of the philosophy and practice of Primary Education. The organisational structure contains a number of working groups each with a brief for a particular activity. These groups are:

Regional Network Group

Which is responsible for the organisation, development, and co-ordination of local activities in each of the 15 UK regions, Eire, and overseas.

Projects and Innovations Group

Which is responsible for the formulation and development of new curriculum and resource projects such as the recent Photo-CD and past software projects.

Publications Group

Which is responsible for the oversight, development and production of MAPE publications such as *MICRO-SCOPE* and the Specials that are produced by MAPE.

Profile Group

Which is responsible for press and publicity activities of MAPE with the aim of increasing public awareness of the organisation.

Conference Group

Which organises the annual MAPE conference. The membership of this group changes annually depending on the location of the conference. The current conference group is based in Berkshire and is busy organising the conference to be held at Bulmershe College on 29th to 31st March 1996. The 1997 conference will be held in Dundee and organised by a group from the Scottish region of MAPE.

The Executive Committee and National Council

The activities of these groups are co-ordinated by an executive committee which meets at least three times each year. Each group has a representative on the executive committee. In addition to the executive there is a National Council which has wider representation from the working groups and this meets once a year, usually in May. There is also an Annual General Meeting which takes place at the conference, usually at the end of March.

Working for MAPE

Each of the working groups above has more than enough work to do in ensuring that MAPE continues to develop as an organisation and supports its members appropriately. Additional help is always welcome with this work. If you would like to become actively involved with any one of these groups then you can do so by contacting:

Yvonne Peers
MAPE
Newman College
Genners Lane
Bartley Green
Birmingham
B32 3NT
Tel: 0121 476 1181

Computer Assisted Learning in Romania

During the past two years this project has donated RM Nimbus networks to 20 schools in Bucharest, together with educational software and teacher training. During 1996 it is intended to double this figure! It is also intended to set up a teachers' resource centre and teachers' support group.

We need your assistance!!!

If you can help with any of the following:

- Donations of Nimbus equipment or peripherals, e.g. network cabling, monitor cables, mice, printers, software etc.
- Forming a link with a Romanian school (in English), by e-mail, exchanging newsletters, etc.
- If you would like to travel to Romania during the summer holidays (fares paid) to help with teacher training, teachers' support group activities etc.



Romanian pupils enjoy the new IT classes.

Further information available from:

Lesley Andrews, The Romania Trust, Brook Cottage, Sydenham, Chinnor,
Oxford OX9 4LY. Tel/Fax: 01844 531153; Fax: 01844 260334

MAPE National Committee Members 1995–1996

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Code 11

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LEAs

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Code 13

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LEAs

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Code 04

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LEAs

Birmingham, Coventry, Dudley, Hereford/Worcester, Sandwell, Shropshire, Solihull, Staffordshire, Walsall, Warwickshire, Wolverhampton

Code 02

YORKSHIRE & HUMBERSIDE To be appointed.

LEAs

Humberside, North Yorkshire, South Yorkshire, West Yorkshire

Code 06

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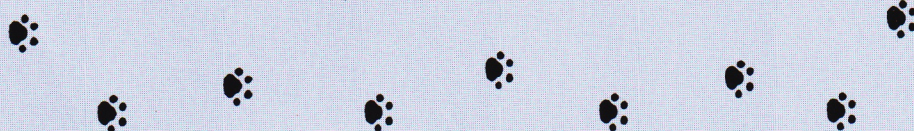
Barry Wake, 24 Beaudesert Road, Hollywood, Worcs B47 5DP

MICRO- SCOPE

MAPE CONFERENCE '96



FORWARD WITH IT!



at the University of Reading

29th - 31st March 1996

Prices held at 1995 levels!

For further details, contact:
Betty Lumley, 28 Westbury Road, Northwood,
Middlesex HA6 3BX



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NEWMAN COLLEGE with MAPE