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A NEWSFIELD PUBLICATION
No. 21 OCTOBER 1985
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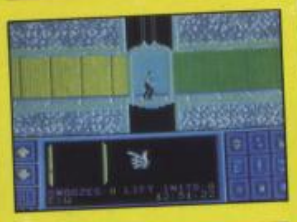

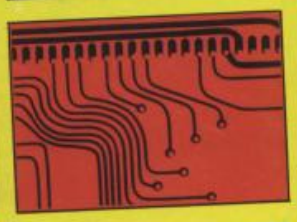

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CRASH ZX SPECTRUM

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Cover by Oliver Frey

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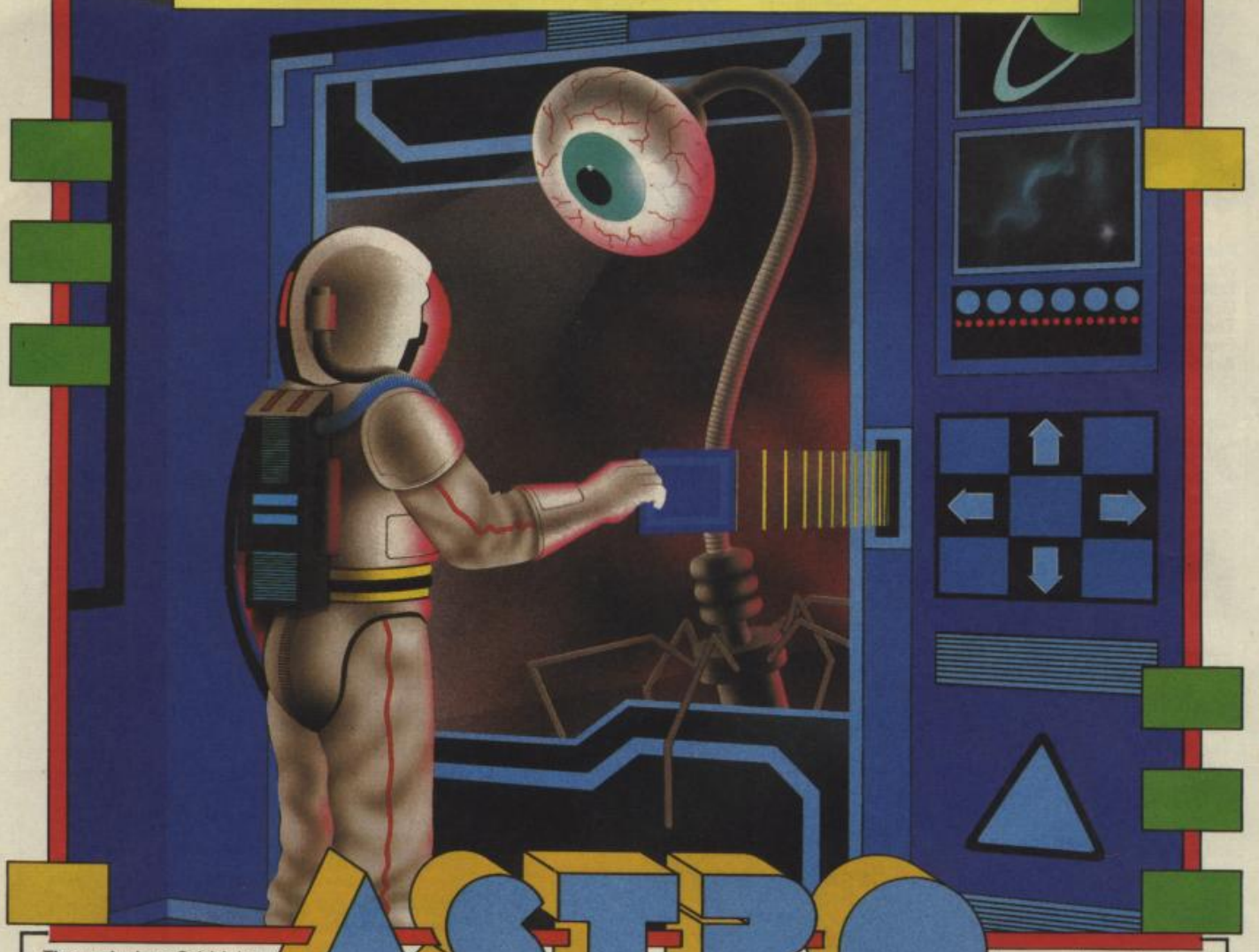
THE 3D INTERSTELLAR ADVENTURE



ASTRO Clone

Those devious Seiddabs are mustering for another attack! Venture through a recently discovered series of stargates guarded by Seiddab fighters, and you'll find a system of named planetoids, each a part of the Seiddab war machine.

Your mission, in this totally original 3D adventure, is to explore these stargates and planetoids and rid them of the Seiddab menace, using an armada of fighters crewed by Astro Clones. In addition, a series of garbled messages tells you that a deadly Graviton Bomb lies hidden amongst the planetoids. Using all your skill and judgement, you must travel through the stargates to find its components and smash the master consul, closing the stargates forever. After a desperate journey through space, beam your clones down to cripple each planetoid by destroying its launch system. However, each landing holds a new surprise! Scattered around you must find everything from passcards to cryptic clues on a computer terminal to continue.

There are also aliens and robots who could help or hinder your plans. Furrimal for instance, is partial to chocolate, while another needs a battery to be of any use. . .The list is endless! Your clone can pick up and store objects, turn and fire a laser– he can even throw objects across the room! Futuristic graphics plus unique sound through many different scenarios make this the ultimate space adventure movie.

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COPIER CONTROVERSY

WITH THE advent of a number of hardware gizmos, such as Interface 3, Microdriver and 007 Spy, the topic of software piracy has taken a new turn — especially now that the new Software Copyright Bill has become law.

A couple of software houses have a very strong opinion about copier programs and hardware. But it remains a fact that very few software houses supply programs on microdrive cartridges — and if you want to use your microdrive to load your latest purchase, you're a bit stuck.

Two companies have been in touch with us concerning advertisements for transfer/copying utilites to date, one of which feels very strongly on the subject of copying utilities — to microdrive or tape. English Software got in touch to say that they thought it hypocritical of magazines (such as CRASH) who refuse to condone piracy and yet accept adverts from companies which offer such utilities for sale.

Indeed, English Software were of the opinion that we could suffer an investigation by the Federation Against Software Theft (FAST) and, by implication, the full force of the new law if we continue to accept such advertisements. English Software told us that they would be encouraging software producers to refuse to place advertising in magazines which also carry plugs for software copying utilities.

We don't believe that tape to tape copiers are exactly moral products, and won't carry advertising for them. But microdrive transfer utilities are a completely different bucket of bytes as far as we are concerned. If you buy a program on cassette, and the software house will not supply that program on microdrive cartridge, we believe you have every right to use a microdrive transfer utility to get your purchase onto cartridge — or indeed onto disc, if you own a disc drive system. We feel we should be free to continue to allow such utilities to be advertised . . . ..

We spoke to FAST and were told that they have not formulated a policy on copying utilities and hardware — the whole area of microdrive transfers is a rather murky one. Bob Hay from FAST alluded to the concept of buying a record, deciding you wanted it on tape, and then recording it yourself. But if the record company simply doesn't sell that piece of music on audio cassette . . . . ? Given that FAST have not yet formulated policy, could it be that there is a vast silent majority of software houses which isn't too bothered about these devices and utilities? Or is English Software just starting the ball rolling?

So, software houses, what do you think? Will you withdraw advertising if we continue to carry advertisements for transfer utilities? As buyers of tape software, what do you think, CRASH readers? Write and let us know, eh?

IT'S SHOWTIME, FOLKS!

The 8th Personal Computer World Show

It's over. Five days of frenetic activity came to a close yesterday, and as we put the finishing touches to this issue of CRASH most of us are massaging aching feet and suffering from sore throats after all that talking . . . The Eighth Annual Personal Computer World Show has been and gone.

As shows go, it was slightly odd — while we were writing the last issue of the magazine, it seemed every software house in the land was saving its new releases for the PCW Show, and it was a bit difficult to get people to part with new software for review. Scampering down the motorway last week, we expected to see a whole horde of new releases for the Spectrum and it seemed likely that we would be returning to Ludlow laden with new programs to load, run and review.

This hasn't been the case.

Maybe it was because the PCW show was a couple of weeks earlier this year, and software houses tripped up over their schedules, or maybe it's because games just take longer to finish nowadays, given the increasing sophistication of software. Either way, the stories we kept meeting up with from Spectrum software houses were 'Due for release later this month', 'Set for October Launch' and sometimes the mega-vague 'Ready for Christmas'.

At least one company had spent thousands and thousands of pounds hiring a plush stand and hadn't a single playable piece of software on show. Others, entered the video age with a vengeance, showing extracts from movies endlessly as a taster for their imminent releases.

There was very little new or innovative on the Spectrum front at PCW this year. The Amstrad, Commodore and Acord stands all had something new (or newish) to reveal to visitors, but Sinclair concentrated on pushing the QL and the range of software that is now available for it. At £199, it's a good deal, but the cry is that it's going to be a 128K Christmas this year. No news from Sir Clive on that front.

In a way, showmanship took over, and the tone of the show looked mucky for a while. System 3 were upsetting some people with their daring dancers and attracted photographers from the tabloid press; and one day half a dozen topless females raided the show, touring the ground floor in little more than orange sashes proclaiming HAL 2000 until they were asked to

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leave by the organisers. HAL wasn't exhibiting and denied knowledge of the girls when they were contacted by the show, according to the Press Officers, and the agency who supplied them didn't name their client. Not quite entertainment for the whole family, somehow.

Bandersnatch, which first existed as a concept at the original **Imagine**, then became the property of a company called **Fireiron** and was backed for a while by Sinclair Research, apparently for the QL, may have made an appearance on the corner of the Atari stand occupied by a firm called **Psygnosis**. a large game, complete with scene-setting book, on the Atari stand. Only time will tell whether we'll ever get a mega-game for the Spectrum.

Overall, the mood amongst the members of the trade was one of confidence, during the PCW Show. This Christmas should be a good one, not only for the trade, but also for you, the customers. There's a whole host of new games on the way, most of which should arrive in time for the festive season. Whether it will be a 128K one on the Spectrum remains to be seen . . .

DID YOU MISS ME?

Sorry if you did . . .

Two days before the official 'on sale' date, EMAP Business & Computer Publications gained an injunction to prevent distribution of the August issue of CRASH on grounds that there was a breach of Sinclair User magazine's copyright in four pages, which it contained.

Those pages were 123 to 126. Newsfield Publications was forced to comply with the injunction and recall all unsold copies from the retailers in order to have the four offending pages removed before redistribution could take place. This was duly done, but in the process it was inevitable that some copies should be lost and the issue go on re-sale late.

If you missed out, and now have a gap in your collection, sorry. But don't despair. We have stocks of trimmed copies, which lack the offending four pages (and come with a special sticker on the front cover) ready and waiting in CRASH Towers. If you want to complete your collection, catch up on the Smashes you missed, obtain the pull out poster specially painted for you by Oli, or merely feel a little empty as a result of a CRASHless August, now's you chance to catch up on the August CRASH Experience. Even after its last minute diet, issue 19 is still 126 pages fat, and comes packed with reviews, profiles and tips 'n hints on gameplay. How can you resist the opportunity to catch up on what you missed?

If you want any other back issues at the same time, it'd be best to use the back issues coupon at the foot of the backnumbers advertisement. But if Issue 19 is all you want — rush off the coupon below together with a cheque or postal order for 95p plus 5p post and packing — a total of £1. and we'll rush you a cut-down copy under plain cover. Well plainish — in the standard CRASH bag, magazines for the sending off in.

EEK! I MISSED ISSUE 19!

I missed out on Issue 19, the August CRASH, and would like you to rush me one straightaway. I therefore enclose a cheque or postal order made payable to CRASH MICRO for £1. Send me Issue 19 NOW — I can't wait any longer. . . .

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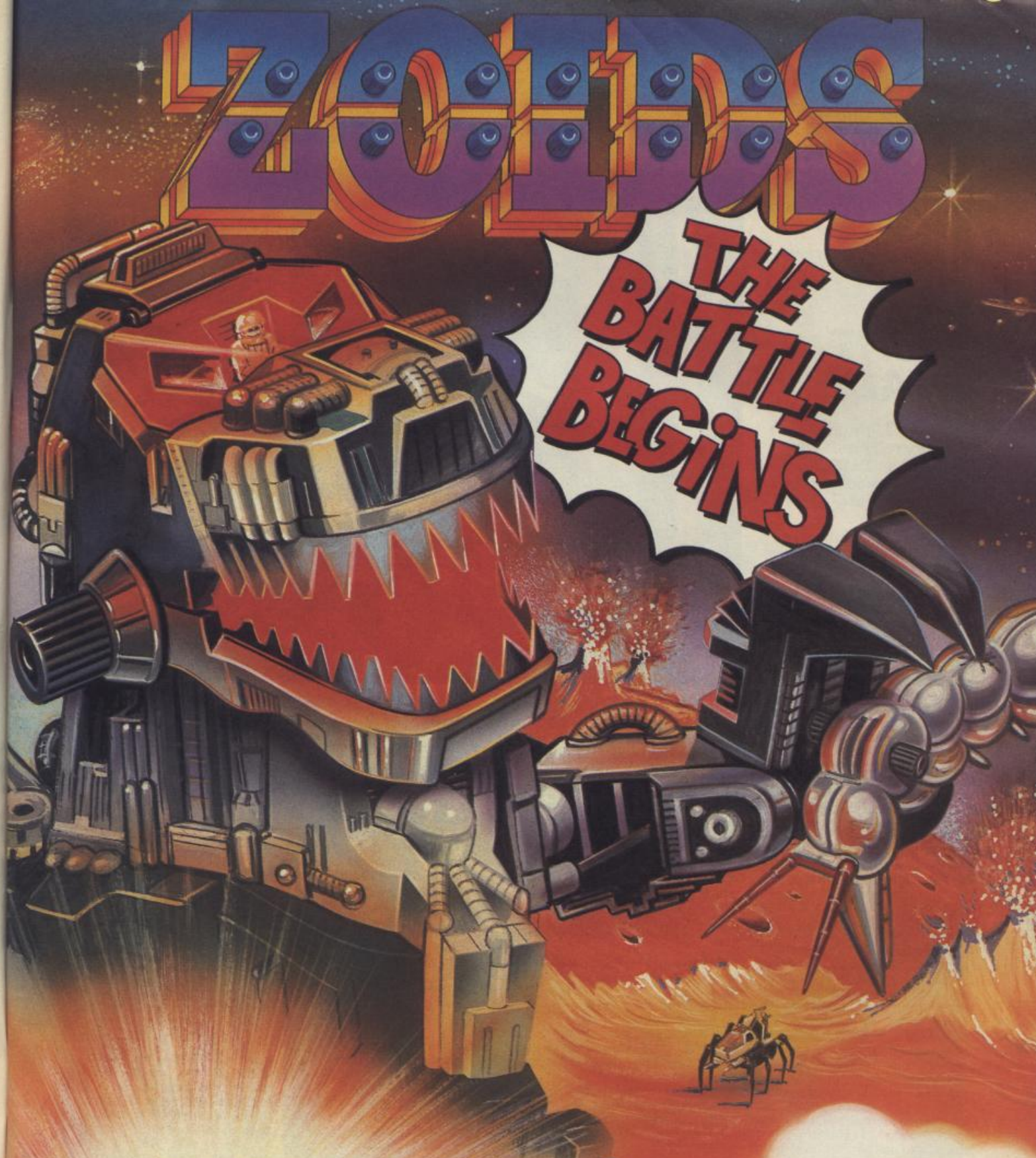

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48K SPECTRUM • COMMODORE 64
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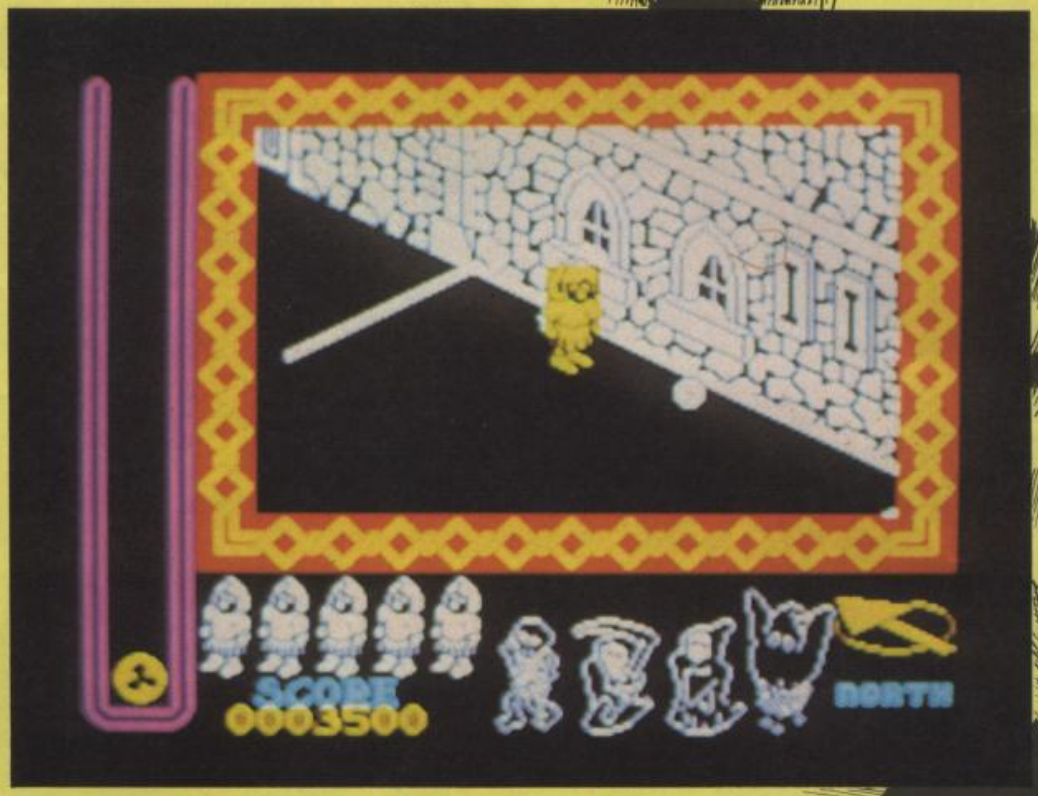
TOMY

A CRASH Smash

NIGHT SHADE

Producer: Ultimate
Memory required: **48k**
Retail price: **£9.99**
Language: **machine code**
Author: **Rare Ltd**



Many moons ago in a hidden valley between the purple mountains and the seas of the Seven Islands there was a great calamity: darkness descended upon that land, evil overran all that was good and death and hunger spread. Those who remained became twisted and striken with evil and the village in that valley became possessed with powers so black that nobody dared enter.

Years later the story became legend and only the songs and tales remained of those who had tried to enter the valley never to return . . . . for those who trespass into the village become enslaved by the immense power of the evil Overlord.

After listening to the story of the battle with the forces of evil in the Nightshade village one night, you decide to set off down the valley . . . . and thus the scene is set for the latest Ultimate game.

Nightshade is yet another arcade adventure utilising similar 'Filmation' programming techniques to those in *Knightlore* and *Alien 8*. This gives a realistic 3D panoramic view of what's going on around you.

The program differs from the last two games in that the scenery scrolls rather than 'flicks' as you move from one location to another and there are no objects which you can shunt about and use whilst playing.

The game itself is set in a typical mediaeval village, complete with ancient looking houses, streets, barns, churches and the like. As you walk down the streets you can see the facias of the buildings in detail, with walls, gables and windows. If you like the look of a building then you can enter it through its door. When you do so the front of the building will disappear showing what is behind - useful as it lets you see what you're doing.

Most of the buildings are connected so you can travel from one to the other by moving through the series of doors and rooms inside. Many of the buildings also have back doors allowing you to go through to the street behind.

Throughout the village there are loads of marauding thingies which rush after you and try to take one of your five men. Each man can be hit three times by a nasty, the fourth touch will result in him being lost. When you start with a new life he is white, when hit again he turns yellow, then green; the next touch after that turns him into a puff of smoke and he disappears

The marauding thingies are all excellently animated and vary from small jelly like bacteria which slide along the ground to huge gremlin types which give chase waving their arms and generally disport themselves in a loathesome and revolting manner.

Your man looks a little like the knight from *Atic Atac* and he's extremely well animated as he wanders about. There are some nice touches too: for instance when he bangs into a wall he puts his hands up to protect himself. He's not defenceless either and can throw things at the nasties to protect himself as he travels around. These 'antibodies' (varying from sticks to what looks like the end of a mace) can be picked up from the rooms of just about any building. Running over them will automatically put them into a tube at the side of the screen. The tube only holds a limited number of objects so it has to be replenished very regularly to increase your (very slim) chances of survival. There are extra lives which can be picked up and there are also boots which, when collected, allow you to run at high speeds for a short while.

When you throw an antibody at a nasty it doesn't always kill it straight off. Some of the bigger ones need to be shot several times with an antibody. The gremlin, for example, splits into two smaller creatures which again have to be shot. The smaller creatures then turn into a bubbling mess which still gives chase until shot for the final time. Thankfully you don't have to go through this rigmarole every time you shoot something - most, like the flames, smaller sliding things and squat, toad-like creatures die immediately after being shot once.

The object of the game is to find and pick up the four super antibodies (bible, hammer, cross and egg timer). Once found you have to track down the four evil characters which run the show (the monk, the skeleton, the ghost and Mr Grimreaper) and throw the correct super antibody at it. If you can do that then the village will be freed from the evil which has ruled there for so long and everybody will live happily ever after . . . until the next Ultimate game, anyway!

CRITICISM

'An Ultimate game is always something to look forward to — just wondering what it will be like is fun in itself. While loading I read the usual obscure Ultimate instructions which gave absolutely no hints; as with all the other Ultimate games the idea behind it is to find out what on earth you have to do! *Nightshade* is well up to their usual standards but unlike *Knightlore* and *Alien 8* it does not set new standards in programming. The idea of using the walls which flick out when you enter a building is a very good one but it tends to leave the screen rather blank. The graphics of the nasties and the village are very good with only a few attribute problems. Colour has been used effectively along with sound but don't expect anything too outstanding. *Nightshade* is likely to appeal to the younger games player or to people who are fed up with the latest spate of arcade/adventure/strategies and want to play a simple game where

you don't have to worry about how to crack certain codes etc. Overall it is a very good game with excellent graphics which makes a welcome change from all the complicated stuff which is being forced on us.'

'After Knightlore *and* Alien 8 *I wondered how far Ultimate could stretch the limitations of the Spectrum. It's now obvious that they've just about reached its peak —* Nightshade *doesn't differ much from the last two, and in fact I must say that I'm pretty disappointed with it. There aren't any objects you can jump round or shunt about, making the whole game seem rather flat and uninspiring. The game itself isn't too difficult — once you've got used to playing it huge scores are easily reached. I can't really see it posing as many problems as* Alien 8. *Still, the game's bound to be a smash and even if it does sometime rely on cheating (materialising a nasty on top of you so you can't do anything) its good fun to play.'*

General Rating: Not quite up to Ultimate's usual standards but still a truly excellent and absorbing game

COMMENTS

Control keys: X/V/N left, C/B/M right, A/S/D/F/G forward, Q/W/E/R/T fire, CAPS SHIFT/BREAK SPACE pause
Joystick: Kempston, Cursor, Sinclair
Keyboard Play: responsive
Use of Colour: excellent
Graphics: excellent
Sound: good
Skill levels: one
Lives: five
Screens: a closely guarded secret, it seems

Use of computer	82%
Graphics	94%
Playability	92%
Getting started	74%
Addictive qualities	86%
Value for money	90%
Overall	**91%**

'Nightshade is as I'd expect it to be. Yet another technically brilliant game from Ultimate. The graphics are stunning, cleverly using high resolution detail to good effect. Making the characters large enough to kill any attribute problems but still cramming them with detail is a good idea. The smoothness of the scrolling window was amazing for the amount of detail packed into it; there's been nothing like it yet on the Spectrum. Controlling the main sprite was a lot easier than controlling Sabreman in *Knight Lore* because of the new option for directional control. A great little touch was the cautious look over the shoulder our hero gives himself after moving off. The thing that confused me was the actual object of the game 'oh, we can't tell you that' said a helpful voice at Fortress Ultimate in answer to our enquiry. I was also told, when asking how large the playing area was, 'It's pretty large'. All in all I can't say that I was as impressed as I have been in the past. I think compared to earlier releases it's lacking in playability. *Nightshade* is still very good though, and technically a lot better than anything else for the Spectrum.'

THE WAY OF THE EXPLODING FIST

Producer: Melbourne House
Memory required: **48k**
Retail price: **£8.95**
Language: **machine code**
Authors: **Greg Barnett, Greg Holland, Stephan Taylor, Damian Watharow and William Teng.**

Melbourne House used to be well regarded just for their adventure games but the release of *Starion* changed that. Now we have come to expect good arcade games as well. Those good old 'Cobbers' from down under have caused quite a stir with their Karate simulation.

In *The Way of the Exploding Fist* you control a single character competing in a Karate match against either the computer or against anybody or anything else that can use a keyboard or joystick. Since Karate offers such a wide variety of moves the control system is necessarily complicated. The one player mode allows either the keyboard or the joystick to be used, but in the two player mode at least one player must use the keyboard.

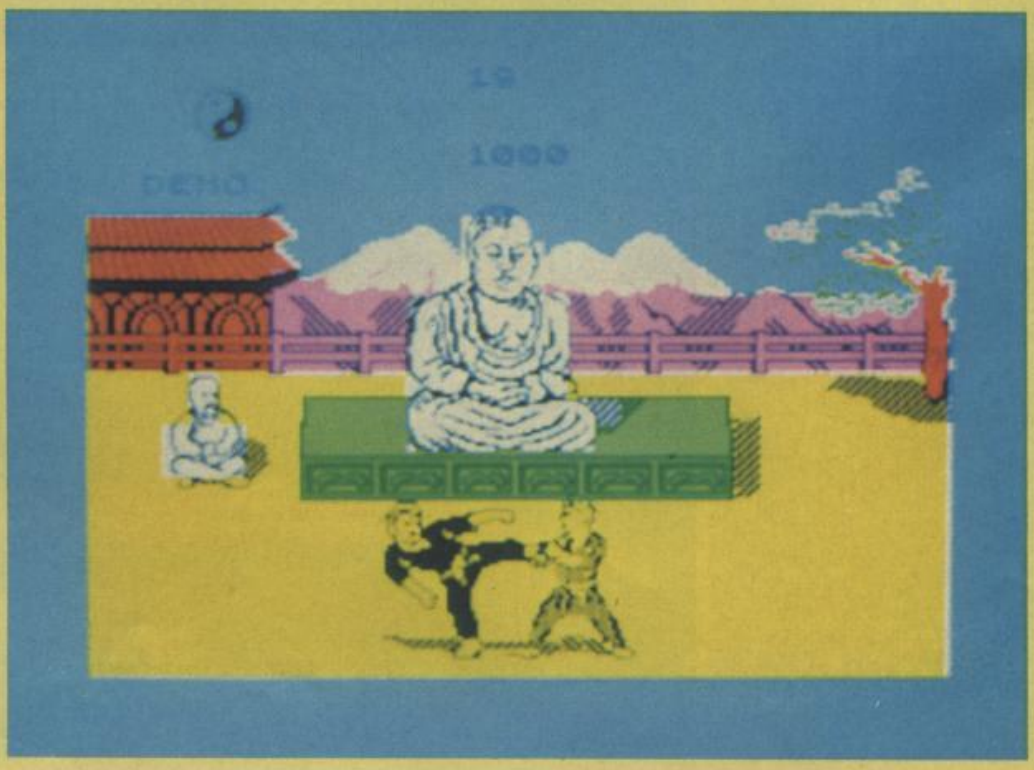
The keys are definable but they are best set up as a square, three keys by three keys — that way, each key represents one of the eight directions obtainable on a joystick. A ninth key provides the joystick fire option, so shifting the eight keys allows a further eight functions, giving the sixteen options needed. With the keyboard set up in a similar way to the joystick it is best to regard each of the eight functions as directions on a compass, eg pushing the joystick diagonally right is the same as using the key on the top right hand of your key square in which case both the key and joystick direction can be referred to as north west or NW.

Whether you use the keyboard or a joystick, as you can imagine learning the controls will take a little time, but they have been laid out in a helpful way. For example all of the kicks are produced when the fire is held down: N gives a flying kick; NE a high kick; E a mid kick; EW short jab kick and S forward sweep which is a more of a flailing action performed with one leg from the crouch position. The backward kicks also rely on the fire button being pressed, but this time in conjunction with the north east and north west controls. Without fire, pushing N makes your character jump, thus avoiding sweeps or low jab kicks. NE produces a high punch, E moves the character forward, EW gives a punch to the belly, S is a crouch and low punch, SW a back somersault, W backwards walk and defensive block and NW makes your man perform an elegant forward somersault.

Learning how to produce the various moves is only part of the story: appreciating when each of the available moves is best used is just as vital. The literature enclosed with the game goes some way to pointing out the pros and cons of each of the moves but a great deal can only be learnt by experience. It's best to start by mastering some of the easier moves which will be quite effective against the low order opponents. For example the short jab kick is quick and effective at close range, as only the higher level Dans will be able to defend against it with ease. One of the better moves is the forward sweep, which can be both offensive and defensive — if the enemy is within range it is very difficult to avoid. The mis-named roundhouse kick allows you to turn about and deliver a vicious mid level kick, but it takes some time to perform so you could be exposed to attack before your blow is delivered.

The somersaults are useful for escaping from the reach of your opponent but, when using the backwards somersault, make sure you know how to turn around otherwise you are going to have your back to your enemy while you are fiddling with the controls. The other defensive moves also require some appreciation. There are two types of defensive blocks: a high and a low block. It would be as well to remember that while you may be able to fend off one aggressive move with one type of block your opponent could change to a move which circumnavigates the block you are holding. Clearly the solution is to changes blocks, but that requires absolute knowledge of the controls and the effect of various moves so that you can pre-empt your opponent's attacks. Because there is no block against low sweeps it's worth mastering those two moves at an early stage.

Your sole aim when battling against the computer is to reach the exaulted rank of 10th Dan. In all, there are eleven levels. Your first fight will be against the Novice — a much battered individual — and you should be able to deal with him with just a little mastery of the basic moves. If you impress the judge (he's the little bald headed bloke with the Mexican moustache) you will be awarded half a point in the form of a yin or yang symbol. A full point (a yin-yang) is only awarded for moves which the judge considers to have been executed very well,



H·E E·X·P·L·O·D·I·N·G F·I·S·T

so a poorly executed but punishing body blow may only be awarded half a point.

The symbolic points relate to your performance in any one bout; to defeat an opponent you must win both bouts, even if only by half a point. In order to progress through the levels you must defeat each Dan in two bouts, and if the computer gets the better of you in a bout then it's back to bashing the Novice. If a bout ends with a draw then you will get the chance to fight that bout again.

Points for the match as a whole are displayed at the top of the screen. These match points are awarded according to the type of move you use. For instance, a straight punch is worth less than the more difficult 'roundhouse kick'. If a move is performed well and is rewarded with a full point, then the match point value of that move is doubled. Fighting against the computer is very good practice for combat against another person because, as you move up from one level to another, you can take comfort in the knowledge that your next opponent is going to be meaner and cleverer than the last. As an added stimulation to training, remember your opponent has only to win one bout and you go back to the start again.

Competition against a fellow human can be more challenging but this time the match is decided in favour of the contestant with the highest score after four bouts. If, during a bout, the time limit is reached and the yin-yang points are even then the judge will order a that bout to be fought again until there is a clear winner.

CRITICISM

It's here at last! It has certainly been worth the wait. This is by far and away the best sports combat simulation available yet. Complete with oriental scenic backdrops, the game flows into Karate mania. With its fab, even dynamic graphics, the kicks and punches seem to have a strength and purpose. I enjoyed *The Way Of The Exploding Fist* **— having mastered the simple straight kick and punch I quickly began to delight in the more complicated moves, back and spinning kicks integrated with the odd somersault. The wide variety of moves means that you are never limited in your means of attack and counter attack. Addictive is the word'**

On the Spectrum there have been few good representations of the noble martial arts. Kung Fu *by Bug Byte was probably the best, but it had so few moves and was painfully slow. Melbourne Houses's* Way of the Exploding Fist *puts that to rights. It has a stunning 18 moves that can be performed with astonishing speed and accuracy, just like the real thing. It can take quite some time to get used to all the available moves, and I found the two player mode best for practice before tackling the computer. Once the moves have been mastered the game starts to really open up and become fun. I was pleasantly surprised by the quality of the Spectrum version; the two central characters are perfectly animated against scenic backdrops which provide pleasant surroundings to have a good fight in! The sound is very limited but it does enhance the game - not quite the screams of the CBM64 original but politer squeals of pain. Exploding Fist is immense fun to play and it really comes into its own on a two player game especially when you are evenly matched. I'm not sure how long it will keep you addicted for, but it certainly kept me up late. Though the weather hasn't been very sporty the recent releases of sports simulations have more than made up for it!'*

Exploding Fist, now that it has finally appeared on the Spectrum, is the best game in the genre to appear yet. Though not as colourful as its Commodore and Amstrad cousins, the speed and gameplay is nearly identical. In fact the monochromatic figures as just as effective in their own way as the Commodore's blocky sprites. Differences that I noticed included the computer opponent's increased viciousness, which makes the game lot more challenging and playable. Getting the fight actions you need can be a fumble at first, but after a bit of practice things get a lot clearer. The sound effects, though sparse, are effective: there's nice thud when a fighter hits the floor and a nasty crack noise when someone gets hit. I particularly enjoyed the two player option which has to make, *Way of the Exploding Fist* one of the best two player games around. It's definitely the best beat 'em up yet on the Spectrum and is good value for money.'

COMMENTS

Control keys: definable
Joystick: Sinclair and Kempston
Keyboard play: very good
Use of colour: excellent backdrops
Graphics: very smooth animation
Sound: good bashing sounds
Skill levels: 11
Screens: 4 backdrops
General rating: excellent

Use of computer	87%
Graphics	92%
Playability	87%
Getting started	80%
Addictive qualities	96%
Value for money	85%
Overall	**92%**

DAMBUSTERS

Producer: US Gold
Memory required: **48K**
Retail price: **£7.95**
Language: **machine code**
Author: **Platinum Productions**

You may have read the book, seen the film or made the Airfix model kit but have you actually re-enacted the mission on your Spectrum? No? Well now you can, courtesy of Sydney Development (design), US Gold (distribution) and Platinum Productions (conversion).

Dambusters puts you in full command of one of the Lancaster bombers used in the historic flights across Europe and into Germany, to stem the output of the German Steel Industry (and to kill a few people in the process). Not only do you have to play the part of the pilot in flying the plane, but the roles of gunner, bomb aimer, navigator and even engineer — all at once!

There are eight screens, one for every role, and each can be 'called up' at any time by pressing the corresponding key. You can also check your current score and status in the same manner. If any of the 'crew' are experiencing problems of any sort then their respective 'letter' flashes at the bottom of the screen to inform you of the fact. For example, a gunner under attack from an enemy aircraft would result in a flashing 'W', implying that you should change to Front Gunner immediately.

PILOT
As Pilot you are given an 'out of the cockpit' view and simply have to steer the plane and keep an eye on airspeed, altitude and heading with the instruments provided. All instrumentation can be displayed as either analogue (dials) or digital (numbers), depending on your bent.

FRONT/TAIL GUNNER
Both screens put you in control of twin 303 FN machine guns (sound pretty smart, eh?) and give you the task of shooting down any enemy planes and barrage balloons that prove a hindrance, or taking out any spotlights that would give away your position. The Front Gunner also doubles up as the Bomb Aimer. When you are approaching the dam a set of distancing sights appear on screen. These sights must be lined up with the two towers of the dam so that the correct distance between plane and dam can be determined so the bomb can be released accurately.

BOMB AIMER
Before the bomb can actually be dropped it must be 'readied' and the plane must be brought to the correct height and speed. Two spotlights underneath the plane need to be aligned to ensure that you are flying low enough, and this screen is for just that purpose.

NAVIGATOR
Although the Pilot steers the plane, the Navigator does have to point him in the right direction first. A six screen map of Europe is used to follow progress and to set the course for a dam (there are three to bomb). All military installations, airports, inhabited areas and industrial complexes are represented on the map by different coloured symbols and the size of the symbol determines the concentration and/or size of an installation.

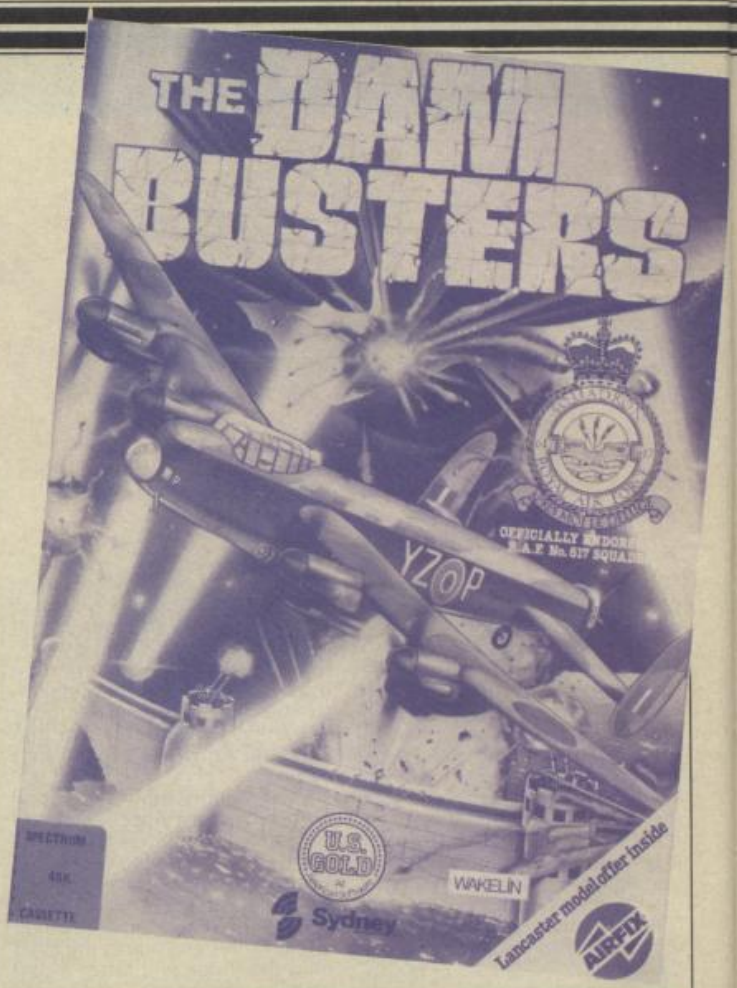
FIRST/SECOND ENGINEER
There are two engineer screens, giving access to all main engine controls, landing gear and other relevant gauges etc. The first screen has a throttle, booster and fire extinguisher control for each of the four engines, with gauges to indicate their status. The second shows the fuel situation for the four engines and allows you to adjust the rudder trim and flaps and raise or lower the landing gear.

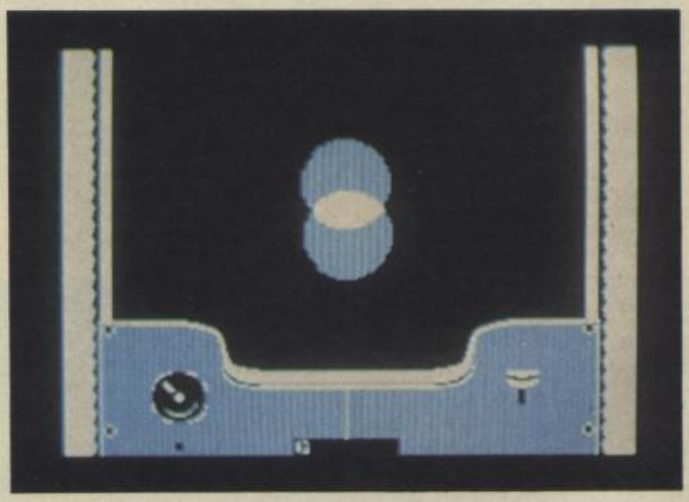
STATUS AND DAMAGE REPORT
This screen gives details on any flak hits you have incurred and the number of ME 110 fighters, searchlights and barrage balloons you have encountered and have actually 'taken out'. A summary of any damage to the plane is also given along with your current score.

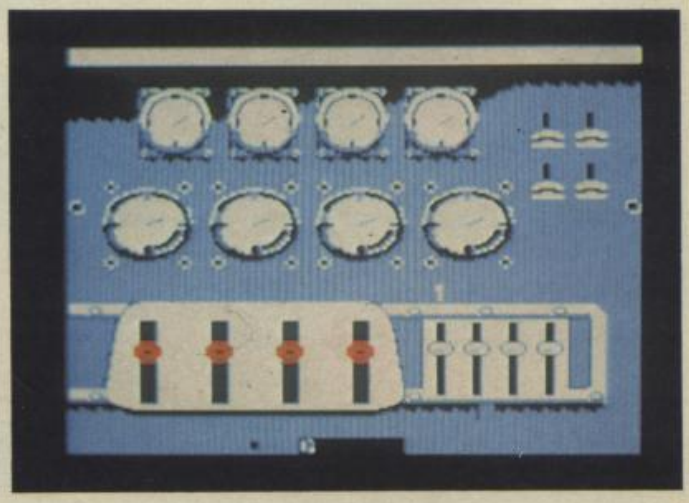
Should you successfully get across Europe, conduct an approach and release the bomb you will be treated to a picture of the dam with comments on where you went wrong, if indeed you did.

CRITICISM

The main problem with *Dambusters* is its playability. The designers seem to have tried to produce a flight simulation with a game, but neither aspect is particularly brilliant. The simulation side of things is good, with enough controls but not much in the way of 'realism' — the feeling of flight is generated only by the detail inside the plane rather than from the external view, as the effect of the dots as a horizon is poor. This is unfortunate, as the gameplay is in fact the weaker element. There is little variety in things to shoot and avoid, and the appeal of the 'one crack' mission soon palls due to the fact that it takes time to fly across Europe to the dam, 'avoiding' flak, barrage balloons and fighters in the







process, only to become very frustrated and despondent when you miss. Still, *Dambusters* **is a good try at something new but fails to work effectively because it tries to cram too much into too little.'**

US Gold's attempt to recreate Guy Gibson's famous dam bombing run has resulted in a cross between a simulator and an arcade game. It is difficult to react quickly to any enemy attack because of the need to switch screens to retaliate. When you start, controlling the plane can be a bit of a problem. The game kept telling me that 'turning and flying at low altitude are incompatible'. This meant my wing had been ripped off! The bombing run was the most difficult of all — you need to control several factors at once, all of them very easy to bodge up. Dambusters *is quite enjoyable, though sometimes a little dull. Some more action would have improved it no end.'*

Dambusters is a brave attempt at a flight simulator/arcade game, the only trouble being that neither aspect of the game is particularly good. There are several really good options, like the facility to practice a bomb run, start in the air over the English Channel or take off from the ground, but the game itself is rather boring. I thought there would be a lot more enemy resistance to a raid which, if completed successfully, would be a major threat to German domination in Europe. The Lancaster is fairly easy to fly and apart from crashing into the ground there are no real problems in staying aloft. The only real tricky bit is actually passing over the dam and dropping the bomb on target. During this part of the game, aligning the Lancaster with the dam is very difficult and fiddly. This results in the whole thing becoming very tedious — reaching the dam is so easy but failing to drop the bomb successfully time after time becomes a bore.'

COMMENTS

Control keys: Q — Pilot, W — Front Gunner, E — Tail Gunner, R — Bomb Aimer, Y — First Engineer, U — Second Engineer, I — Status, Damage Report and Score, H — Pause, 1 — Down, Q — Up, 8 — Left, 0 — Right, Bottom Row — Fire
Joystick: Kempston, Sinclair, Protek
Keyboard Play: responsive
Use of colour: poor
Graphics: detailed instruments, little else
Sound: average
Skill levels: three
Lives: one
Screens: eight
General rating: a playable flight simulation and game

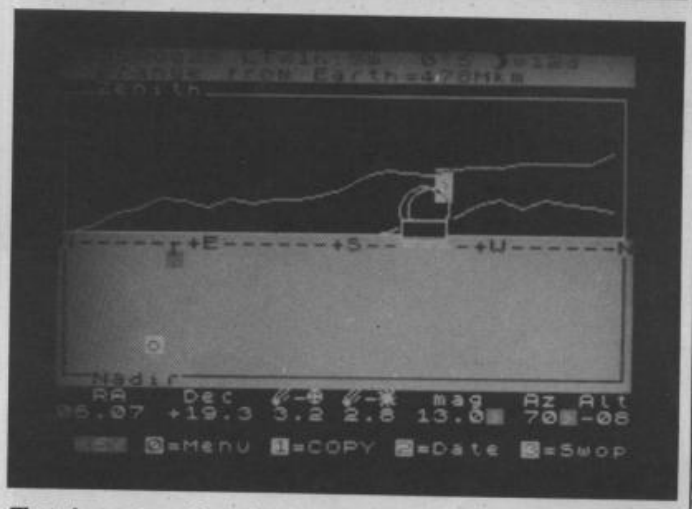
Use of computer	78%
Graphics	80%
Playability	73%
Getting started	79%
Addictive qualities	68%
Value for money	70%
Overall	**75%**

HALLEY'S COMET

Producer: Eclipse
Memory required: **48k**
Retail price: **£6.95**
Language: **basic with machine code star map**
Author: **Maurice Gavin FRAS**

Graeme (Grey Boots) Kidd tells me that there has been some sort of major disaster every time Halley's Comet has poked its nose into our corner of the solar system. I have every confidence that Grey Boots is wrong but, not being the sort to leave anything to chance, I thought that I should refer to Maurice Gavin's latest work, *Halley's Comet*.

Halley's Comet is designed to provide non-astronomer types with a comprehensive and easy to follow guide through this forthcoming celestial visitation. The opening menu lists eight options. Option one plots the path of the comet from 1948 to 2024 giving two perspectives. The plot takes about four minutes but it can be speeded up. The second option does much the same thing except this time the scale of the map is much larger, the plot is from September 1984 to January 1987. The next three options give information on the comet's visibility. First, a graph of apparent magnitude which shows when the comet will be visible and by what means it can be viewed. For example, between now and November the comet can only be seen through a telescope but from January to May you can observe it with the naked eye alone. If you live in the Northern hemisphere and want to know for how long the comet will be visible each night, then option four will tell you. Eclipse haven't forgotten the other CRASH readers either, because option five does the same as four, except this time for viewers in the Southern Hemisphere (and a big hello to all CRASH readers who live there).



That observatory thingy is what you need if you can't wait until November to see HALLEY'S COMET.

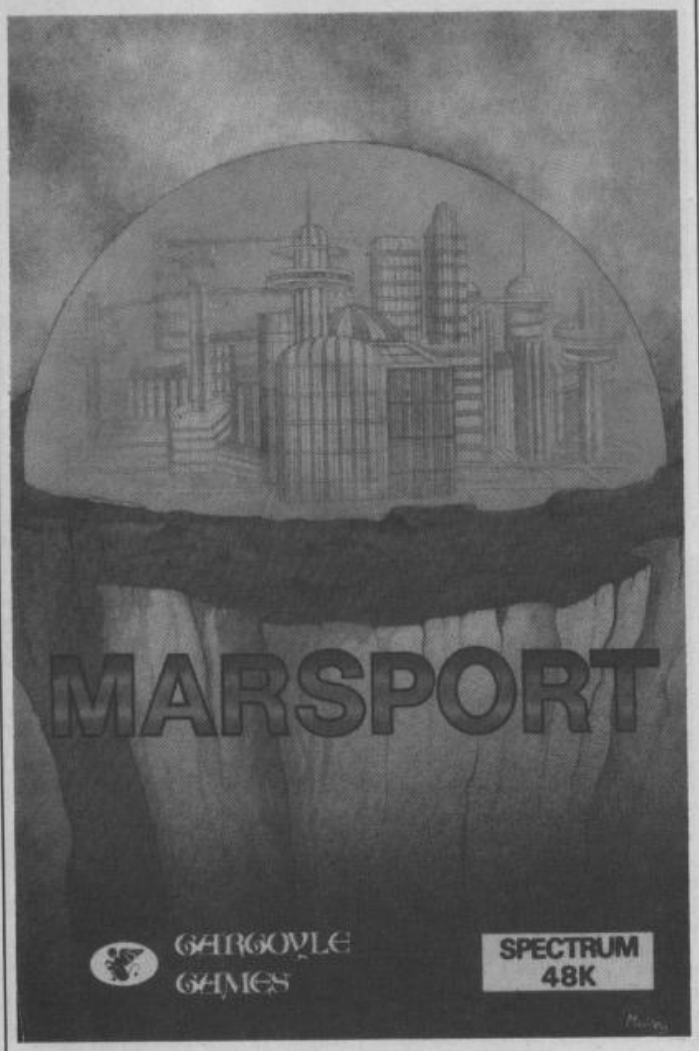
The next options produce some very useful but often complicated looking results. The computer does not calculate the data relating to the comet's position — instead it looks up a table which results in a much faster response. A complete list of the the data can be called up by option six. The data table looks a little complicated because it uses unfamiliar units. RA stands for right ascension; in simple terms you can think of that as longitude on Earth. Declanation is analogous with Earth's latitude. These units are important for those of you with observatories in the garden; all that you need to do is to enter the co-ordinates and it will be set ready to let you observe the comet.

For most of us — all we need to do is to be able to locate the comet by referring to the patterns made by the stars — a star map can be called up via option seven. The star map produces a detailed map of the heavens marking the position of the comet according to the latitude, date and time that you enter. Underneath the map itself is a table giving the comet's position in numeric terms and giving it's apparent magnitude. In a little box on the far right of the screen is a diagram depicting the view of the comet in relation to the horizon. This display is enlarged if you select option 3 which causes the skymap to be produced on a full screen.

I am not really that much of a star fan but I will be trying very hard to catch a glimpse of this comet. What appeals to me about *Halley's Comet* is that I can ask for a map that will help me find the thing, as well as work out the best time to watch. The print out option is very helpful: all of the screens can produce a hard copy so you can rush out into the garden and work out just where to look. My only serious gripe is that not enough printed information came with the program. I mentioned this to Mr Gavin and he assured me that more information would be available on request. If you do intend to make the most of this visit then buying this package could be money well spent; after all you have always got it for the next time unless — of course — Grey Boots is right.

MERELY MANGRAM MERELY IA

Having moved away from London several years ago, primarily to get away from crowds, I can never see any good reason why I should have to endure the press of people at these computer shows (much as I love you all of course)! So if I am forced to go, it's usually for the shortest possible time and on the quietest days. Thus I slipped unannounced into this year's *Personal Computer World* **Show to have a brief look around the stands to see if anything interesting is on its way, and to see whether some promised material was getting a pre-showing.**



One thing that immediately occurred to me was that despite a general air of despondency in the industry before this show, the actual exhibition seemed well attended by many software houses with new games, utilities and general doobries. What also struck me was how many software houses were showing screens or videos because the games are not yet finished! Still, I'd better leave most of those details to the news team. On with the show

Our own Newsfield stand had some interesting titles that included finished versions of *Monty on the Run (available from mid-October) for both Spectrum and 64 — the 64's volume was up full and reminded me of every Spectrum owner's main complaint, the quality of the music on the 64 version is great . . . We also had a well advanced version of* **Gargoyle**'s latest, *Marsport* (available by the end of September), first of *The Siege of Earth* trilogy, which I'm told by Robin Candy, who was on the Newsfield stand, caused a considerable stir (I'll say no more, since Robin has previewed it in this issue). Thanks to **Melbourne House** we also previewed *Fighting Warrior*, a game slated incorrectly as 'Way of the Exploding Fist II' — that game is still in preparation. *Fighting Warrior*'s programmer was on the stand to show people how to play this martial arts with swords game, and after a brief look, I can say it looks very good. Should be available soon. Interestingly, I was told that *Way of the Exploding Fist* was actually finished first for the Spectrum, although it was the 64 version that came out first.

So what caught my jaundiced eye? **The Edge**, just down the stairs from the Newsfield stand, were showing finished versions of their newest epic *Fairlight*. It's a bit difficult to judge these things at an exhibition, but the graphics are certainly stunning and I'll have to leave a preliminary judgement to the ubiquitous Robin Candy (who's gone back to school today, thank goodness — peace at last in the office). After a few goes, he announced that the game plays pretty well too. The Edge also had their graphics utility *The Artist* on show.

Activision's was a busy stand, but the three new Spectrum offerings were from a subsidiary run by Rod Cousens called **Electric Dreams**. *Ant Attack* programmer Sandy White's new game is a 3D graphics adventure called *I, of the Mask*. The game isn't completed and no one was saying much about it apart from the fact that Sandy has used 'advanced three-dimensional techniques'. It looks extremely impressive, with a small figure moving at high speed through 3D building shapes. At £9.95, the game will be released in October. *Riddler's Den* is an arcade strategy game featuring a man with a trunk for a nose, possessed of four pockets for carrying useful objects about a maze. This will be £7.95 when it comes out at the end of the month. With *Winter Sports* (£9.95, October), we have another sports simulation that includes nine events related, naturally enough, to snow. Perhaps Activision's biggest draw was the astonishingly compelling *Pet Person*, not so much a game, more a way of life, where you have to keep a pet man and his dog alive, well and happy in a three-storey house fitted with all mod cons. Sadly, it has to be disk-driven, so while it may appear on the Amstrad and is almost ready for the 64, I doubt we'll see it on the Spectrum.

Mice seemed to be the biggest vogue this year (remember how it was light pens not so long ago?), and several for the Spectrum were to be seen, but the most impressive program I saw attached to a mouse was from **OCP**, whose graphics utility *The Art Studio* struck me as being the most advanced yet for the Spectrum. It is just like having *Macpaint* and *Macdraw* on the Spectrum, and despite having to cope with the obvious drawbacks of the machine as compared to **Apple**'s Macintosh computer (!), you can do most things with the program and the results are impressive to say the least. I was much amused to watch people draw, paint and airbrush moustaches and sideboards onto a marvellously digitised face of Sir Winston Churchill, colour the bits in, rub them out and rearrange them, and all of it at fantastic speed. Obviously the program will have to rely on most people using the keyboard, but I would say a mouse makes this a highly sophisticated program. Watch out for more in (probably) the next issue of CRASH.

Orpheus were showing two games, *Tujab*, a sort of space/robot/save the universe game (£8.95) which looks jolly, and a very truncated animated screen of their major Christmas release, *The Young Ones*. A bit difficult to judge from that what it will be like to play, but Orpheus' John Marshall is such a nutter that it can only bode well . . .

Along the way from Orpheus, and nestling next to the EMAP stand, was Mark Cale's **System 3** emporium where you could look at some screen shots of *International Karate* and admire the muscles of breeze block-bashing heroes on the hour, every hour, or the glistening, oiled bodies of nearly naked women, every hour on the half, all accompanied by deafening music. Looked fun — but where's the game Mark? (I have since been told that a clothing disaster happened at one showing that led to a ban on the women . . .)

Across the corner from PCW's Soho, stood **Martech**'s impressive exhibit featuring *Geoff Capes — Strongman* and of course the Zoids. The Zoids game isn't finished, but a marvellous video made by Tomy, the Zoids manufacturers, kept everyone delighted. Other videos were to be seen downstairs at the **Beyond** stand, where *Superman* is coming together — and he looks pretty super too. Sad news is that Mike Singleton's *Eye of the Moon* has been delayed until after Christmas because Mike has been snowed under with getting his 64 game *Quake Minus One* finished. Not a Daley Thompson javelin throw from Beyond, I came across the **US Gold** and **Ocean** stands. More videos here, with *Rambo* visible only from clips of the film. *Street Hawk*, much delayed too, was not in evidence, but by the time you read this it should finally be out; and talking of Thompson, his *Super Test* has just arrived on my desk — of that, more next month.

ANGRAMMEREL

Firebird had *Elite*, now finished, showing and once again I'll leave the details to Robin (Dangerous) Candy elsewhere in this issue. Herbie Wright from Firebird is well pleased to be able to announce *The Gang of Four* — a quartet of games due soon: *Rasputin*, a multi-screen 3D game with isometric graphics, *Runestone*, *Costa Capers* and a whimsical little number which will appear under the name *Gerry The Germ. Gerry travels around the human body in a slightly different way — for instance in the stomach scene, he rows a boat across the digestive juices! With the Silver range due for a price cut (to £1.99) a new Super Silver range is on its way from the Firebird offices — ten titles in all, but kicking off with Thunderbirds*, of Gerry and Silvia Anderson fame, *Willow Pattern* and *Chimera*.

Just along the way from the Elitists, **Melbourne House** were running a dark (and blessedly cool) grotto showing their *Fighting Warrior* and the graphic 'adventure' *Terrormolinos*. There were also some 'tasters' including the follow up to *The Hobbit*, *Lord of the Rings* (out in

December), and a comic cartoon style game based on the adventures of that ancient Gallic hero *Asterix*. There was also a follow up to *Mugsy* called

Mugsy's Revenge, featuring similar animated comic strip scenes to the original, with more strategy and arcade sequences.

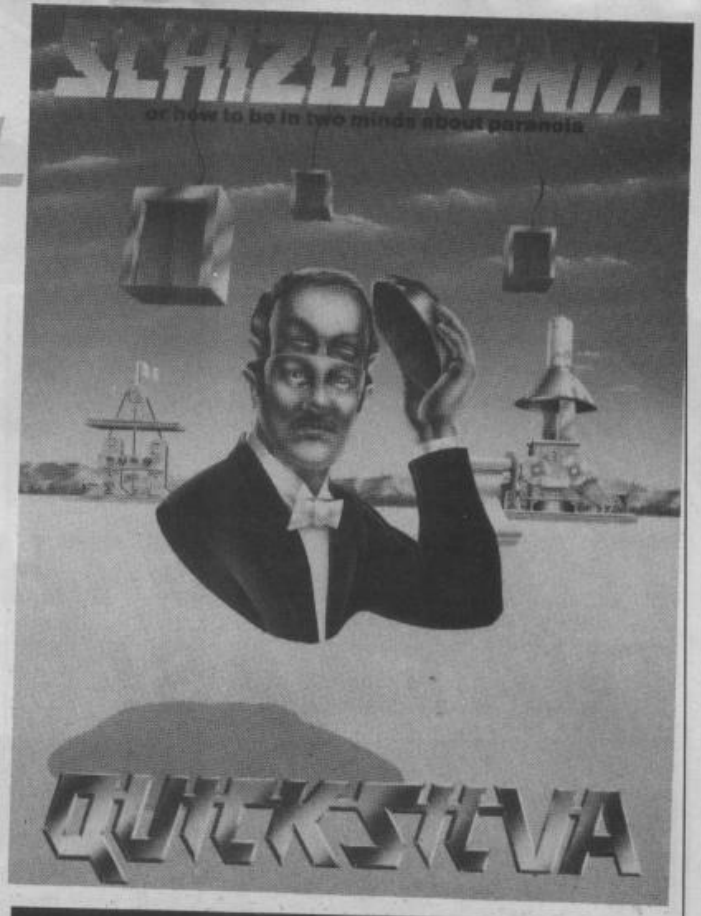
Mastertronic will be expanding their budget range with a new game from David Jones, programmer of the successful *Finders Keepers*. DJ's latest is to be called *Spellbound*. Two more Mastertronic games are under preparation, one of which has a working title of *One Man and His Droid*. Went to mow an asteroid, presumably? On the budget software front, **Alligata**'s low-price label **Budgie** has a quiz game in the pipeline which comes with questions on General Knowledge, TV and Music, Sport and Easy General Knowledge. Plans are afoot to release further data tapes, possibly over the telephone lines via Micronet. Also expect to see a showjuming simulation from Alligata soon — they've really gone to town on the animation, as there are some 280 views of horses involved!

Finally, a brief glimpse at *The Secret Diary of Adrian Mole* programmed by **Level 9** revealed that the game will come in four parts, each part being devoted to three months of Adrian's life. In all, the game will include over 200K of text, which makes it larger than Sue Townshend's original book. Ms Townshend has fully approved the new material so Adrian fans will be in for a treat quite soon . . .

Among the items of general interest that caught my eye, Microvitec's talking tiger was one of the most amusing; a large graphic of a seated, smiling tiger on a monitor placed in a cage talked to anyone who stopped to look. Interactive indeed, because you could talk to it, and it answered and asked questions of you. Whatever it said, its mouth and 'face' reacted properly.

The massive, three-part Atari stand featured a desk headed **Psygnosis** with four screens on it attached to the Atari ST. On these screens you could see a game that looked remarkably familiar to glimpsed screens of the (in)famous *Bandersnatch*. Since the ex-Imagine programmer **Eugene Evans** was in evidence on the stand, telling people about the game, my curiosity was even further aroused, as last I heard he was supposed to be working on *Bandersnatch* for **Fireiron**, the company who at one time were producing the game for Sinclair Research.

I didn't get over to the **Argus Press Software** suite in a nearby hotel, so I can't say much about their new releases which include a follow up to *Rupert and the Toymaker's Party* and, under the **Quicksilva** label, *Schizofrenia*, a puzzle/arcade game featuring Alphonse T. Nurd whose alter-ego has discovered the meaning of independence. Under the **Mind Games** label, ASP are also releasing *The Evil Crown*. This is



an attractive looking graphic adventure with fighting sequences set in Feudal England. Its novelty lies in the fact that you must fight to take the evil crown and you can win only if you are ruthless enough. As the packaging says, 'If you're fond of small cuddly toys — FORGET IT!' Other news from Argus is that the **Bug-Byte** label is being renovated to produce games at what might be called the mid-budget range (£4.95 probably). More news on this front soon.

That just about wraps up my quick, hectic and extremely hot visit to the show. Sorry to CRASH readers who may have hoped to see me on the stand — you've got to be kidding! besides which I had to rush back to help get this issue of CRASH to the printers while all the editorial team had a high old time at the show . . .

KERRASH! N·E·W·S

THAT WAS THE PCW SHOW, THAT WAS!

●Wasn't it just packed! As everyone expected, lots and lots of people came to the show, and at times it was impossible to move for the crowds. Thank heavens it's all over for another year.

● Before the dancing stopped: one of the poses struck on the SYSTEM 3 stand during the show which kicked off with the words 'Naughty But Nice'. Not nice enough for the organisers, who wanted the mock violence and whips (!) taken out

●Ben Stone models a ZZAP! T Shirt and chats to a visitor, while Roger Kean stays in the background with Franco Frey. Sally Newman, the Dragon of Mail Order rests her weary feet (she's not really that short!)

●Just three of the visitors we had on the Newsfield Stand. A trio of Platinum Producers who came to London to hand over the first parts of RAMBO and BEACH HEAD 2 to Ocean.

●*Messrs Kean, Kidd and Candy join in a discussion. Candy (in the dark shirt) refuses to be distracted by the presence of a camera, as does the short-haired Kidd. Kean, on the other hand, can't resist the temptation to watch the birdie . . .*

● *Two of the SYSTEM 3 Dancers without their make-up and costumes . . . . No, not really. Our very own Denise Roberts (Subscription Queen) smiles whimsically for the camera while Mail Order Aggie (Carol Kinsey) hides behind a plastic cup of vino on the Newsfield Stand*

● *A long shot of the Newsfield stand. 'Now on Commodore 64 and Amstrad' said little round sticker someone put on the Stand Sign. How true, how true . . .*

SHOWMANSHIP?

The stand taken by **System 3** at the show was rather unusual, in that it about half of it was a stage. All the world came to see a trio of scantily clad females go through their dance routine — a promotional stunt to draw attention to the company's forthcoming release, *Twister* subtitled for some reason *The Mother of Harlots*.

While the dancing certainly attracted crowds and crowds to the System 3 stand, as System 3 Supremo *Mark Cale* rather expected, it also attracted the attention of the show organisers who threatened to turn off the power to the stand if the naughty bits didn't cease forthwith.

On the trade days the shows went ahead, but complaints were laid with the organisers who threatened to close down the stand. Despite calling upon Fleet Street photographers and claiming that all that was being offered was 'entertainment for the kids', Mr Cale conceded the point and withdrew his dancers.

Karate demonstrations continued on the stand, however, with a veritable wall of building blocks being destroyed during the show to remind people that *International Karate* is on its way, and a bemuscled hunk of a man was in permanent attendance to promote the third promised release from System 3 — *American GI*.

NEWSFIELD TRIO

This was the first time that Newsfield took a stand at the Personal Computer World Show — previously a mob-handed extended visit took place, with carrier bag laden minions tramping round the show and disappearing to Ludlow at the end of the day.

This year, everyone came, except David Western, Oli Frey and Gordon Druce, who stayed behind in Ludlow slaving away over this issue of CRASH aided and abetted by Lloyd Mangram who scampered back to help muttering darkly about hating crowds.

A successful show was had by the CRASH, ZZAP! and AMTIX team — and thousands and thousands of AMTIX Issue Zeros were given away to visitors to the stand. Watch out for Issue One of our new Amstrad magazine — it'll be on the streets any day now!

ACTIVISION ACTION

Activision promised that the stunning games *Rescue on Fractalus* and *Ballblazer* which owners of Atari and Commodore computers are getting so excited about, will soon be available for Spectrum owners. There were no details of price or similarities to the originals but they should (with any luck) be available by Christmas. Other goodies the **Activision** mob

were frothing about included *Hacker*, a game were you accidentally break into some large mainframe whilst playing on your computer and are greeted with a simple 'Logon Please' leaving you entirely on your own as to what to do next! 'After all,' said **Activision**, 'it would be like that if it happened in real life!' Wonder how they know that?

Another promised release is their latest graphic adventure, *Mindshadow* which is dedicated to Amnesiacs Anonymous. Still, the game does have some very interesting ideas in it and the translation to the Spectrum shouldn't do it any harm. One game **Activision** will not be bringing out for the Spectrum (at least in the forseeable future) is *The Great American Cross Country Road Race*. Well frankly, with a roll—off—the—tongue title like that, who can blame them?

SANTA SINCLAIR'S STOCKING FILLERS

To see the Sinclair stand at the show, you would be excused from thinking they didn't make the trusty Spectrum. Apart from the blurb for the special Spectrum pack Dixons will be handling this Christmas, there was nothing particularly new, exciting or even hopeful about the stand. Sinclair wanted nothing to get in the way of his new half price QL offer. It looked as though he was trying to forget about the machine that really made it for him — but in return it looked as though the public wanted to forget about him. The Sinclair stand just wasn't the centre of attraction that it had been at previous shows. It appears that no matter what he does about the QL, people still remember the damning press the machine first received. If this is Clive's Christmas offering then the company are really walking on a tightrope!

Sir Clive arrived on the first day of the show with Bill Jeffrey, the new Chief Executive of Sinclair Research, but they both remained tight-lipped about the the new 128K Spectrum, pausing only to deny that it would be available this year.

Fifteen year old Matthew Woodley receives his £25,000 reward for the successful completion of **Domark**'s Eureka *at the PCW Show. Presenting the cheque are Dominic Wheatley and Mark Strachan, directors. Apparently Matthew made several calls to the ansaphone which waited for the winner — it wasn't until his third attempt that he plucked up the courage to actually tell the thing he'd completed the game!*

WAY OF THE EXPLODING AUSSIES

In the wake of another success with *Way of the Exploding Fist*, **Melbourne House** revealed glimpses of their latest offerings at the PCW show. The main attraction was their rather unimaginatively titled *Fighting Warrior*, which uses ancient Egypt rather than the mysterious Far East as the setting for arcade aggro. Steve Cargill, the programmer responsible, apparently produced a specially easy version for demonstration on the **Melbourne House** stand — so anyone who managed to play the game through at the show is in for a surprise when the finished version hits the streets!

You are an Egyptian warrior on a quest to free a princess, and have to fight your way across a horizontally scrolling landscape, defeating hordes of devils and demons who are intent on preventing you from ever achieving marital bliss. Looks promising!

Melbourne House were also running the animated film version of *Lord of the Rings* as promotion for their up—coming sequel to *The Hobbit*. There was plenty of excited sales pitch offered on this game and it does sound very interesting, but we've yet to see anything . . . One new program we did manage to have a quick preview of was *Asterix*, based on the phenomenally successful cartoon series of the same name. With cartoon characters wandering around on a 3D screen, it looks as though once again, the good old Spectrum has been pushed to the limits — but as to what it's about? Well, nobody would say, actually . . .

● Steve Cargill relaxes with a drink on the Newsfield stand after providing us with a copy of his latest program FIGHTING WARRIOR. This fellow has the same taste in shirts as Our Man in the Psychedelic Chemise, John Minson. Are we missing some fashion hints up here in Ludlow?

STATISTICS TIME

Mintel Publications, the market research people have come up with some interesting figures for the future of home computer and video console games.

Video consoles and games made about £25 million last year, about half their 1982 sales peak, and this year the figure will only be about £16 million according to the Mintel forecasters. However, it's a different story for the home computer games market, valued at around £100 million. In 1980 about a million units were sold and by the end of this year, Mintel estimates another seventeen million units will sell. Even so, they expect the phenomenal market growth witnessed to date will reach a peak before long. The outlook suggests fewer software companies which implies market stability.

On the hardware front, the prediction is that more people will buy disk drives and bigger machines to cope with new software. Apparently, wide audiences are expected for the games and entertainment programs, due to the rise in unemployment.

So there you are, it's all in black and white. And if you want the full report, *Leisure Intelligence, Video and Computer Games* is available from Mintel Publications for £125 a single issue, or you could subscribe for £420 per annum . . .

LETASET

Producer: **Eclipse Software**
Retail price **£4.95**

Letaset is a rather unimpressively packed, alternative character set library, usable on either the 16 or 48K Spectrum. What you get for your hard earned pennies is a standard cassette box adorned with a well below standard cover slip. (I realise manufacturers adore unusual presentations for their software but really, this cover is awful). It may be that Eclipse software are keeping the price low by cutting their overheads, but I find it hard to imagine a more miserable cover.

Unfortunately, this mega-cheap approach is also used on the instruction booklet. It is poorly presented and not particularly easy to read (although admittedly, I've seen worse). The actual explanations for use of the utility offer little help to the uninitiated, but patience should reward those who struggle on. *'So when will he stop griping and tell us what it's all about?'* Good point, that. Okay then.

The idea is that you can load up the *Letaset* program (with or without a demonstration mode) and all the different founts (ie text styles) stay hidden high up in memory, ready to be used as and when you want them. You call up the relevant fount by use of a poke, so there's no problem using them to brighten the presentation of a BASIC program. In fact, that's likely to be the main use of *Letaset*, however I shall discuss such things shortly.

The tape loaded without too many problems (I was using a slightly unfamiliar setup and the corruption errors encountered could have been because of errors on my part). When the program had loaded it went straight into a demo routine which displayed each of the eighteen character sets in upper and lower case, two at a time.

These are the founts you get: **boldxz; italic; compact; knight; pump; ghost; logo; script (1 and 2); futura; shadow; odysey** (I can't tell whether or not that is a deliberate error); **roman (1 and 2); stencil; dragon; rocket** and **cursor**.

It was on seeing not just the number of founts, but also their high quality that the program did begin to seem more impressive than its poor packaging had suggested. Apart from being very clear on the screen, dumps to both an Alphacom and Sinclair printer yielded excellent results. The character sets, as some of their names suggests are very varied and anybody using the utility should be able to find a style to suit any context.

As I mentioned earlier, the main use of *Letaset* would be to brighten up self written software, perhaps a database or even a home made word processor. Unfortunately, because of the nature of the program, its authors cannot guarantee that it will work with commercially produced software, so one of *Letaset*'s best hypothetical uses, say in *Tasword*, is unlikely to be successful in practice. It is possible to do screen saves and dumps, however, so some very quaint 'one offs' could be created with only the barest essentials of programming knowledge. Having criticised the manual for its presentation, its author must have certainly had some imagination. There are various 'useful' suggestions made as to how to get the best out of your *Letaset*. The most ambitious of these is the idea that by using a random pattern generator listed in the manual and overprinting it with various legible characters, you can create tickets or vouchers which are 'virtually impossible to counterfeit.'

Hmmmm. Maybe . . .

All this talk of pretty patterns is very imaginative and good for the soul, but if used for little else, the program would soon be boring. Anyway, more variety could be gained by writing such a program from scratch, without any appreciable increase in difficulty. Perhaps Eclipse were being a little optimistic with some of their hopes for *Letaset*.

Just when I thought it was safe to come to some conclusions about the program, I discovered there was more to *Letaset* than I had anticipated. Side two of the cassette contains a modification program which allows character sets to be squashed, stretched, enlarged or any mixture of contortions you can imagine. The largest you are allowed to have a character is one full screen (3222) or alternatively 22 by 64 displays are possible when the character sets are at maximum reduction. These modifications to the size of the text, do increase the possibilities for 'domestic' use.

There are a few miscellaneous points which work to *Letaset*'s advantage. First of all, no matter what fount or display type you choose, there is no restriction on the use of colour. Again this will

Spectrum 16k/48k or +

'Incredibly frustrating!' - that's the verdict on Cassette-50's FROGGER. Satisfied users tell us it's one of the most challenging you'll find - it's almost as good as the arcade version! CARGO has you trying desperately to complete your helicopter mission under attack. Plus 48 other tactical, logical and adventure games featuring multi-coloured and user-defined graphics, scrolling and full use of the Spectrum sound capabilities.

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12. Maze Eater
13. Microtrap
14. Motorway
15. Labyrinth
16. Skittles
17. Race Track
18. Ski Run
19. Tanks
20. Solar Ship
21. Ten Pins
22. Cars
23. Stomper
24. Pinball
25. Cavern
26. Laser
27. Alien
28. Cargo
29. The Race
30. The Skull
31. Orbit
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34. Raiders
35. Field
36. Draggold
37. Space Search
38. Inferno
39. Nim
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make screen displays more attractive although, of course, the effect will be irrelevant if you are only dumping to one of the thermal printers. Secondly, the programmers have redefined so of the previously 'redundant' characters from the Spectrum's keyboard to create the symbol of a dragon and a damsel's facial profile! Okay it's totally useless but quite amusing nonetheless.

Despite the poor production and presentation, this was a simple utility which I found easy to use once I got going. I'm not too certain of its practical uses outside that of providing interesting title screens for programs but nevertheless, some of the possibilities did intrigue me. The real saving grace of *Letaset* is that it really is a time saver. This is all a utility can ever ultimately attempt to be. Incidentally, the authors have allowed the use of *Letaset* in commercially produced work, so long as the correct credits are visible on the finished product. That will always encourage the adventurous.

Sean Masterson

STAR FIREBIRDS

Producer: Insight
Memory required: **48k**
Retail price: **£7.95**
Language: **machine code**
Author: **the Insight team**

In days long gone by there used to be an arcade game called 'Star Firebirds'. It was a very 'hip' game to be good at and came to be one of the cheaper ways of becoming a super hero because you didn't have to spend a fortune learning how to play it. *Star Firebirds* is a one or two player game based on that once popular arcade game.

If you think back you will probably remember the format; you are in control of a little space craft weaving your way through space when you are persistently pestered by wave after wave of weird and aggressive bird-like space ships. The basic idea is that you move your craft left or right dodging the onslaught of missiles while at the same time firing like crazy in order to reduce the enemy's ranks a little. If at any time you find yourself in rather a tight spot there is a 'chicken switch' which allows you to warp out to the top of the screen to appear again at the bottom. Very useful, but you only get one opportunity to do that on each wave.

The speed at which the game starts depends on which of the five levels you select, and you can choose a one or two player game. The number of enemy ships in each attack wave is set at 50. During a battle the number of ships that remain to be destroyed is shown at the top of the screen, underneath the number of lives remaining to you. The current score for each player is given at the top left and right of the screen respectively. Each successive wave will be harder and, as the screen scrolls faster and the speed of the enemy ships increases, staying alive becomes just that little bit more difficult. It's at the higher levels that the large bombs become a real problem — they descend from the top of the screen and make their way towards you. If you can, it's best to hit them before they explode and spray the bottom line with shrapnel — which they will do even if you score a hit, but at least you will get some points for your trouble. The points depend on how far away the bomb is when you hit it: 50 if it's right at the top, 200 if it's nearly down your throat.

After the first wave you get a chance to re-shape the Firebird itself. It appears at the top of the screen and makes a bee line for you. If you let it get close enough it will start spraying you with missiles. Destroying it is a little difficult because you really do have to hit it quite a few times before it does the honours and turns into a ball of flame; never fear though, true to legend it will return to pester you for the next wave. The rate at which the space craft move is governed by the level you are on, but the rate at which a bomb comes at you can and does switch between three speeds. Also, the number of missiles fired by the Firebird is likewise variable.

Finally, if you manage to end up with a reasonable score you could have a little fun cracking the secret messages hidden in the high score table . . .

CRITICISM

●'I know it's an old game but I enjoyed it anyway. I think it's fair to say that it is rather easy and by the time you have cracked the higher levels you could start to lose interest. The graphics are quite good, the movement of the space craft is smooth and quite fun to watch. My only gripe is the price. £7.95 is an above average price for a game of this sort. However, if you liked the arcade game and fancy a very straight-forward arcade shoot em up then you could certainly do worse than buy this.'

●'I am afraid that this is another variant out of the left†right and fire mould. There isn't a great deal of variation in the game — it just gets faster as you move from one level to another. It's clearly a copy of an old arcade game that was making the rounds years ago, so in that respect this is not an original game. At first I did find the game challenging at the higher levels, but once I had sussed the patterns of the enemy attacks I began to lose interest. I liked the loading screen which has a pretty neat counter telling you how many K of code remain to be loaded.'

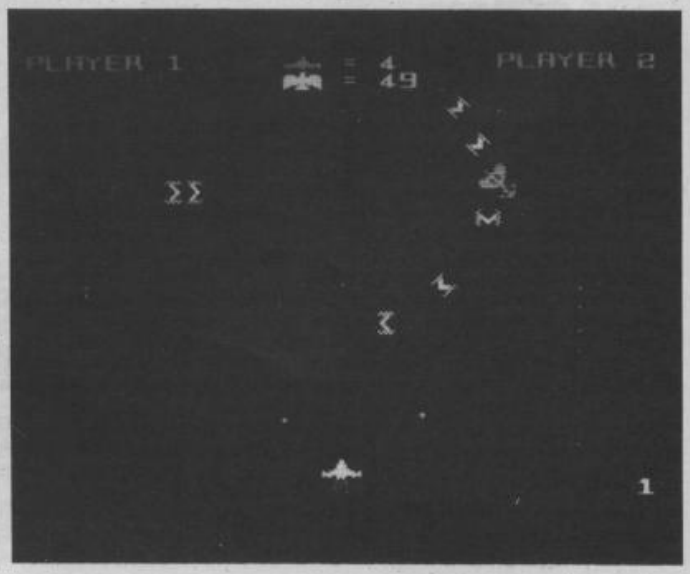
●*'Space Firebirds* is a conversion of the arcade game of the same name. It is a very good copy of the arcade original but it looks very dated now. The graphics are adequate but they are not likely to make you jump up and down with glee. As shoot em ups go, this is quite a good one though it is not on par with *Moon Cresta*. *Space Firebirds* is extremely playable but you are unlikely to return to it often. What really lets it down is the £7.95 price tag. If it was a budget game I would recommend it but it is just too dear at the moment. If you like shoot em ups then consider this game otherwise it is a bit boring.'

COMMENTS

Control keys: definable, excluding space, symbol shift and caps shift keys
Joystick: Kempston, cursor type and Sinclair
Keyboard play: very responsive
Use of colour: well used but a few attribute problems
Graphics: very good and quite smooth
Sound: very little during the war but it plays a very good tune
Skill levels: 5
Screens: one scrolling, 64 attack waves
General rating: dated, but a good game

Use of computer	78%
Graphics	67%
Playability	84%
Getting started	75%
Addictive qualities	65%
Value for money	43%
Overall	**73%**

Don't get cocky kid. Just because you can zap a STAR FIREBIRD or three doesn't mean you're a hero



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ROCK-FORD'S RIOT

Producer: Monolith
Memory required: **48K**
Retail Price: **£9.95**
Language: **machine code**
Author: **Peter Liepa and Chris Gray**

In issue 12 CRASH carried a review of *Boulder Dash* marketed by a K-Tel company, Front Runner. The rights to the game are owned by an American software house, First Star, which designed the game for the Atari. Now that K-tel and Front runner are no longer part of the software scene, Monolith (owned by Beyond) were able to get the UK Spectrum and Commodore licences. Monolith's package includes the original game, *Boulder Dash*,and features a sequel — *Rockford's Riot*.

In both games, you control Rockford, a cute little character, who is trapped in a collection of sixteen caverns which he must work his way through sequentially. To progress from one cave toanother you have to collect a number of diamonds; how many varies from cave to cave, but on some you could find yourself looking for up to 75 diamonds. There's also a different time limit for each cave. Run out of time and you lose a life.

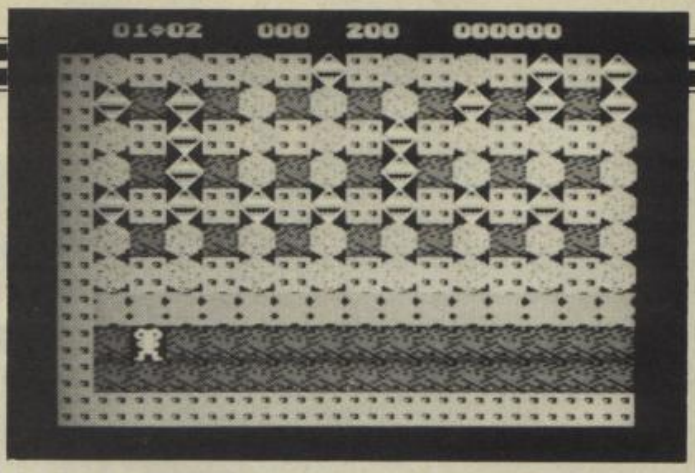
The caves are about three screens large and are presented in a scrolling format. Rockford can move left, right, up, and down. Whenever he nears the edge of the screen another section of the cave scrolls into view. The caves are made up from three basic building blocks; earth, boulders and diamonds. Earth is eaten away as Rockford moves through it, leaving empty space in his wake. When earth-supporting boulders or diamonds is removed, they fall down, making things potentially dangerous for Rockford.

Once you've collected the set amount of diamonds from a cave you need to search for an exit. This can be quite tricky as it's relatively easy to get cut off from your escape route after moving the boulders about. If you escape, you will get a bonus, which depends on the time you have remaining. As you progress through the caves things get harder as new factors are introduced.

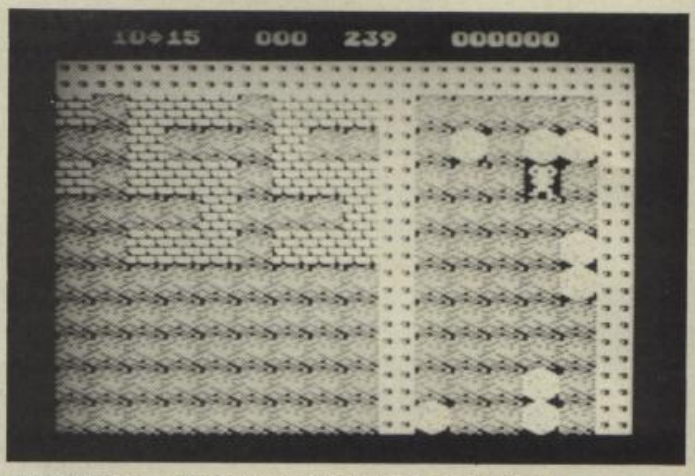
In some of the later screens you have to transform diamonds into butterflies. One cave contains no diamonds at all: just one expanding amoeba which you must encapsulate in rock, whereupon it turns into a pile of diamonds which also need to be encased in rock. If you leave the amoeba for too long it changes into hundreds of boulders which are likely to squash you.

The game doesn't have to be started at screen A — you can begin from every fourth cave: A, E, I and M. If you manage to complete four consecutive caves a bonus screen is awarded along with achance to solve a little puzzle and gain an extra life. Lives arealso awarded for every five hundred points. Five skill levels are included which affect the cave structures and the time allowed.

Rockford's Riot is very much a sequel to *Boulder Dash*. All of the old features are here but arranged in a different way to present a new challenge. *Riot* has sixteen new screens and two new features that are not in *Boulder Dash*. An expanding wall gives you a very nasty time in one of the caves when you clear the earth away from around it. Water is found in two caves — while it isn't dangerous you can take advantage of its supportive qualities.



Bathtime for ROCKFORD, not an occasion the little chap looks forward to; get him out but don't let him get battered with a boulder



ROCKFORD taps his foot impatiently waiting to begin his awsome jewel-gathering expedition into the unknown; wonder if he gets a bald spot holding up those boulders?

CRITICISM

● **'I expected** *Rockford's Riot* **to be a step forward from** *Boulder Dash*, **but it's really just a step sideways. Admittedly, there a few new features, but for all intents and purposes** *Rockfords Riot* **is a souped-up** *Boulder Dash*. **The program still has its good points.** *Boulder Dash* **fanatics will love** *Rockfords Riot* **and it's extremely good value for those who never bought the original, thanks to the B side. But I must admit that I would be disappointed and feel slightly cheated if I'd bought** *Boulder Dash* **in the past and had just purchased** *Rockfords Riot* **expecting an exciting follow up. The B side would only make things worse.'**

● *'Spectrum* Boulder Dash *was a very good conversion from the Commodore, retaining all the playability of the original, despite the poor scrolling.* Rockford's Riot *is as good a translation as its predecessor in that it follows the 64 version closely. The thing is, the new screens aren't particularly innovative and I was somewhat disappointed to see little in the way of new adversaries. This is still a very enjoyable game to play but I would have appreciated something more than a simple reworking of the theme.*

● 'Having played and enjoyed *Boulder Dash* immensely llooked forward to getting hold of *Rockford's Riot*. After loading the latest offering from Monolith I found that while being a good game, *Riot* offers little more than some extra caverns for *Boulder Dash* without any graphical improvements. It is a fun game to play which can keep you addicted for hours and hours, but once all the good routes have been learnt it becomes very boring and repetitive. £9.95 seems a bit steep, but you do get *Boulder Dash* with it. Overall it's a good game but if you have already got *Boulder Dash* then it isn't very good value for money.'

COMMENTS

Control Keys: left M, X, 5; right Symbol Shift, C, 8; up E, O, 7; down F, K, 6; fire N, V, B, 0; Q to quit; S to reset
Joystick: all joysticks
Keyboard play: very responsive
Use of Colour: very simple
Graphics: not over detailed, but still good
Sound: very good
Skill levels: five
Screens: 16
General rating: very addictive but the game is getting a little long in the tooth. Above average nevertheless

Use of computer:	75%
Graphics	85%
Playability	92%
Getting started	89%
Addictive qualities	87%
Value for money	90%
Overall	**84%**

HOW THE RATINGS WORK

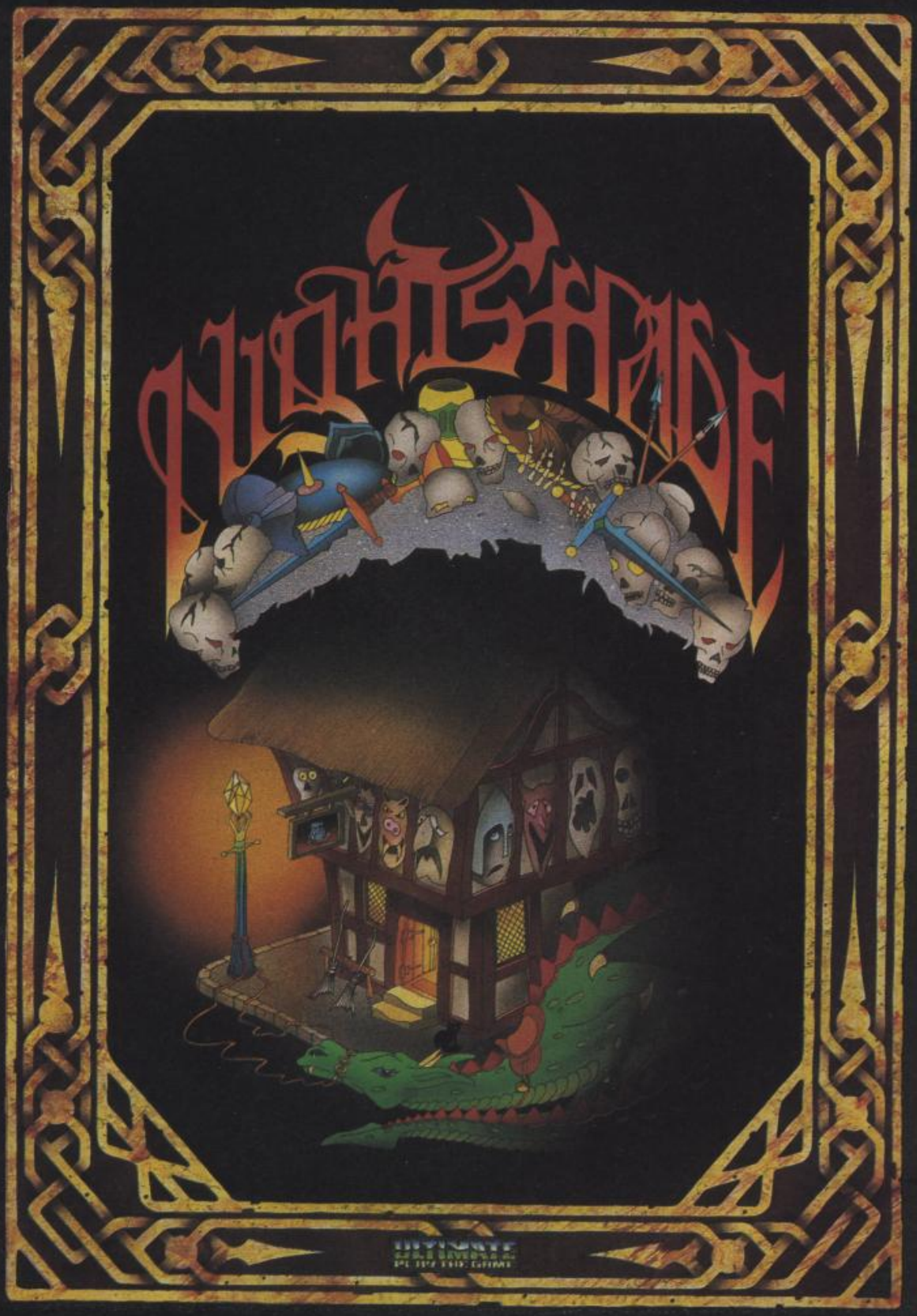
IMPORTANT CHANGE!!!

After more than a year of maintaining the CRASH rating system, we have made one important alteration. The **OVERALL** rating is **no longer calculated as a strict average of the previous 6 ratings**. Now each reviewer is independently allowed to judge the Overall worth of a game as a **separate rating**. We hope this will help overcome some of the inconsistencies which readers have noted in the past.

OVERALL PERCENTAGE is now a separate and distinct rating. ALL ratings are an average of three reviewers' opinions.

Under 30% — a waste of time
31-40% — generally poor but may appeal to some
41-50% — below average to average
51-55% — reasonable average if game type enjoyed
56-60% — above average to good
61-70% — good on most counts, generally recommended
71-80% — very good, recommended
81-89% — excellent
Above 90% — a CRASH Smash, words fail. . . .

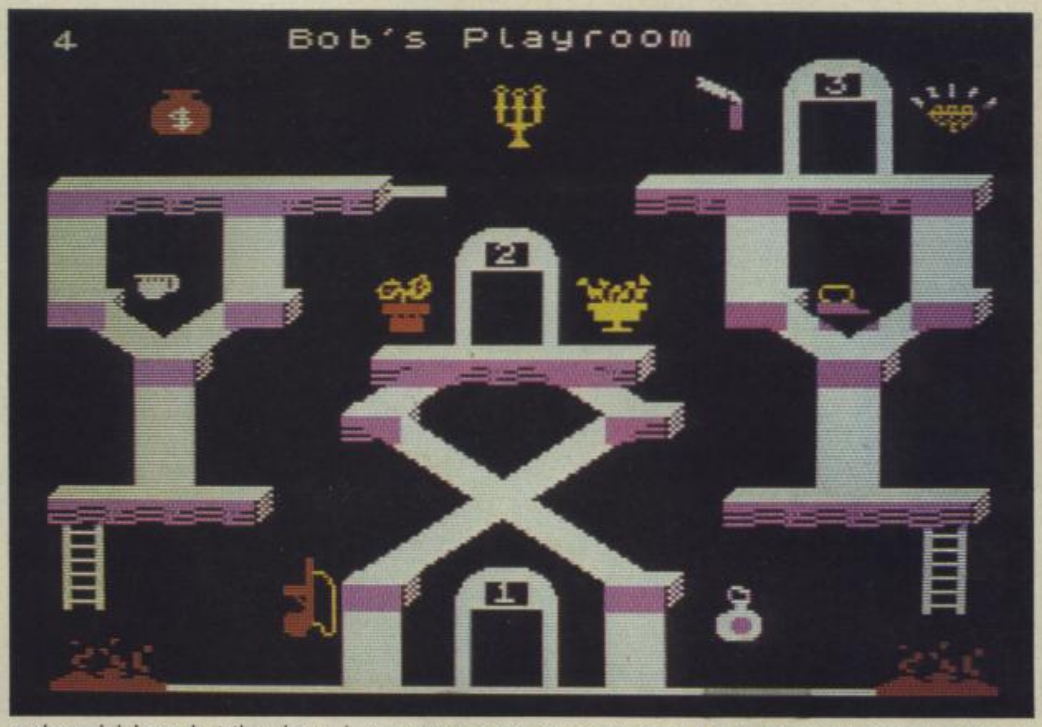
48K SINCLAIR ZX SPECTRUM



"NIGHTSHADE" recommended retail price £9.95 inc VAT.
Available from W.H.SMITHS, BOOTS, J.MENZIES, WOOLWORTHS
and all good software retail outlets. Also available from
ULTIMATE PLAY THE GAME, The Green, Ashby-de-la-Zouch, Leicestershire LE6 5JU
(P&P are included) Tel: 0530 411485

BOUNTY BOB

Producer: US Gold
Memory required: **48K**
Retail price: **£7.95**
Language: **machine code**
Author: **Tim Miller**



Bounty Bob originally appeared on the Commodore 64 and Atari and is a follow up to another 64/Atari game, *Miner 2049'er*, the first ever platform game. In case you haven't seen Miner 2049'er (that's where *Manic Miner* came from) here's a quick history.

Miner 2049'er is set in the mines of Yukon Yohan, an evil swine who has dumped radioactive waste in the caverns and turned all the little furry creatures who stored their food there into horrible, marauding mutants. The idea is to enter the caves, steal all the radioactive stuff (whilst dodging the mutants) and escape. *Bounty Bob* is set in the same mines and the plot is pretty similar, although this time Yukon Yohan has left some odd bits of machinery lying around the mines, which occupy a total of twenty five screens.

Control, although being for a standard left/right up/down ladders and jump game, has a novel touch — a variable jumping distance. To make a short jump, leap straight up in the air and wait until Bob's almost at the peak of his travel before pressing the left or right key. To make a long jump, press the direction key as soon as you press jump. This, although it takes a while to get used to, is an excellent control method, allowing you to do some pixel perfect jumps.

As you walk along a platform it changes colour. To complete a screen, you have to change the colour of all the platform floors before the time limit runs out. The difficulty level you choose at the start of the game determines how much time you are allowed for each screen, and as you move round a digital counter at the top of the screen remorselessly reduces your remaining moments. Progress is impeded by loads of deadly mutants trundling about the platforms. One touch from a mutant kills you, and you have to either dodge or kill them.

To murder mutants you need to collect one of the items littered about the screen and this adds points to your score. All the mutants turn green when you pick an object up, and a green mutant dies when you run into it. After a while they'll flash a couple of times and return to their normal, deadly selves. There are usually quite a few of these objects littered about the screen, all of them everyday things like radios, coffee pots and candelabras, but they have to be used quite sparingly since getting from one mutant to another usually takes a while.

If you lose a life on a screen you are reincarnated, as are the objects — but the mutants you managed to kill stay dead. And you don't have to re-walk the parts of the platform you covered before meeting your end, which makes life that bit easier.

On some screens there are devices to help you travel to the more inaccessible platforms. These vary from conventional lifts to the more exotic matter transference beams that teletransport you from point to another. Look out for the 'super energy food bars' — if you eat one you speed up and your jumping power increases by a factor of three, allowing you to jump huge gaps between platforms. Very handy indeed!

Slides connect some platforms, and when you step onto the top of a slide you go tumbling down the chute. Before you descend to a lower platform, take a good look at what's below you — sometimes there's a rampaging mutant at the bottom and it doesn't do you much good landing on it if it's not flashing!

Within the game there are special codes and warps which allow you to start from different levels. These are revealed as part of 'secret messages' which pop up when you solve certain screens, starting with screen four.

When you get a top ten high score you can enter your name by bulldozing your initials onto a moving conveyor belt. Once you do so a load of birds fly on screen, pick them up and deposit them on the high score board. If the tenth score is beaten then it'll be dropped on the floor, bulldozed into a square and booted off the screen by Yukon Yohan himself.

The menu screen allows you to choose different skill levels and the number of lives and you can control a number of other variables, giving the game far more variation than you'd expect from a run-of-the-mill platform game.

CRITICISM

● **'This is a really fabulous platform game. I first saw it on the Atari in April, and then on the Commodore and was subsequently hooked. It's survived the transition to the Spectrum very well, and apart from the usual drop in graphical and sonical qualities has the same brilliant playability. The game has some highly original touches, making it fun to play and a real toughie to solve. The game is a classic and shows that you can't beat a good ol' platform game.'**

● *'Bounty Bob Strikes Back* was, and indeed is, one of my all time favourite Commodore games. It isn't one that I thought would translate to the Spectrum too well, but I'm glad to say I've been proved wrong. The graphics have been reproduced as near perfect as is possible on the Spectrum and the game is as playable as ever. This is a refreshingly original variation on the platform theme and one that shouldn't be ignored by anyone seeking a complete collection of classic games.'

● 'There seem to be many platform-type games on the market; quite a number are copies of arcade games, others are original. In both sectors there are good and bad games. This one is a huge improvement on its predecessor — *MINER 2049er*. The screen is well laid out, and uncluttered, although there is plenty going on. It is ages since I have seen a platform game with such complexity and with so many screens, each demanding a different skill factor. Each screen is also a definite progression through the game. Sound is well used, with some nice tunes now and again. Graphics are well drawn, but there is some flicker, such as on the lifts. I don't think that this spoils the playability. One of the more complex platform games around, this one could go down well with platform game freaks.'

COMMENTS

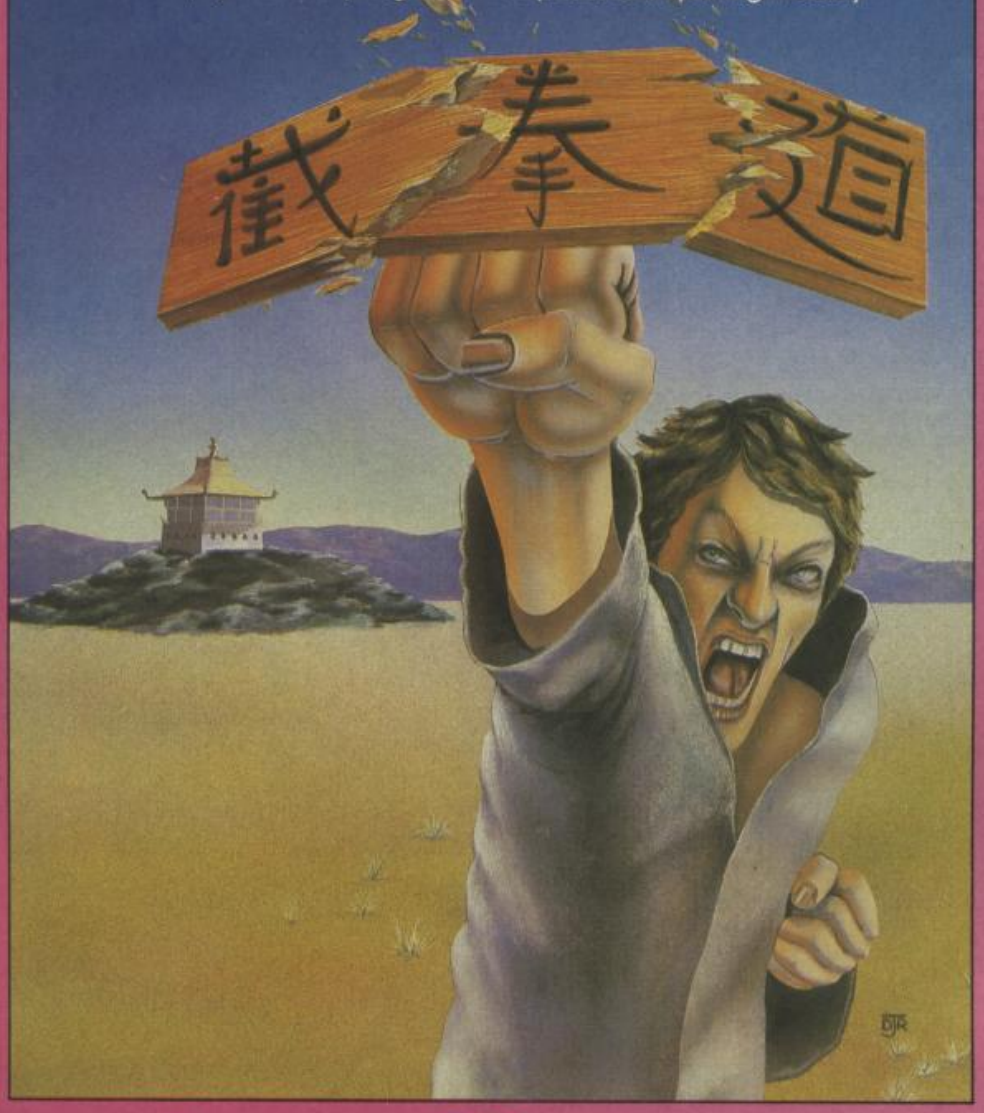
Control keys: O/6 left, P/7 right, Z/0 jump, Q/9 to enter transporters etc
Joystick: Kempston, cursor and Interface 2
Keyboard play: good, pity you can't define the keys
Use of colour: above average
Graphics: pretty neat, but there is some flicker
Sound: nice tunes and sound effects
Skill levels: 4
Screens: 25
General rating: a good platform game which combines a lot of extra facilities

Use of computer:	82%
Graphics	74%
Playability	83%
Getting started	80%
Addictive qualities	82%
Value for money	75%
Overall	**85%**

THE WAY OF THE *exploding fist*

Become a master of this mysterious ancient art: progress from novice to Tenth Dan and test your strength and discipline. You can control your character with either joystick or keyboard - 18 different manoeuvres including blocks, flying kicks, leg sweeps, roundhouse and even somersaults!

Challenge the computer, facing opponents of progressively greater skill, or compete with a friend. THE WAY OF THE EXPLODING FIST has it all - addictive competitive action, dazzling graphic animation and sound. The wait is over - you are about to face the challenge of a lifetime! "Spectacular, startlingly original epic, most televisual game I have encountered."- Daily Mail. "Quite simply the best program." - Popular Computing Weekly



"The graphics made my eyes pop out. Fantastic sound effects, state of the art animation and brilliant game play. One of those games that you can get out time and time again."

ZZAP

"Brilliantly designed and animated. The sound and brilliant music adds to the realism with pre-punch grunts and thwacks as you hit the ground."

COMMODORE HORIZONS

"Melbourne House's Fist is the most realistic and enjoyable computer combat games yet."

YOUR COMPUTER

"Truly spectacular, superb animation. One of the best games."

COMMODORE USER

"A blockbuster in all senses of the word. The graphics are just right, the sound is great too. Quite simply the best program I've seen."

POPULAR COMPUTING WEEKLY

"Spectacularly startling original epic. One of the most 'televisual' games I've encountered."

DAILY MAIL

"The graphics and sound are terrific and the only thing that stops this game short of total realism is blood."

ZZAP

from **MELBOURNE HOUSE**

AVAILABLE NOW FOR THE COMMODORE 64 AND AMSTRAD AT £9.95 AND SPECTRUM AT £8.95

DAN, DAN THE DYNAMITE MAN

Sproing, Leap Cavort goes Dan as he leap from ledge to platform and back again in the crazy house looking for sticks of TNT with which to rescue the love of his life. The game has to be one of the best looking, most tuneful platform games around at the moment. Just for you, MIRRORSOFT have agreed to offer fifty copies as prizes.

Leap out of your comfy chair, Sproing across the room and Jump to it. The Dynamite Dan Wordsquare needs solving. Sort our where the words are hiding (and this particular wordsquare has been devised in a secret, dark corner of CRASH Towers well away from the evil influence of that mob of yobs on ZZAP! so there's been no infiltration) then whizz off the solution.

After you've scampered down to the Post Office to send your lovingly completed Wordsquare to Dan Comp, PO Box 10, Ludlow, Shropshire, SY8 1DB, there's little left to do but have a little rest and then start exercising your joystick arm and keyboard fingers. There really is no reason why YOU shouldn't win a prize you know. And if you do, you need to be in peak physical form to play the game, don't you?

Now there's an idea. I could make a fortune and retire to the Bahamas, never having to sort competition entries again. All I've got to do is put my mind to making a special workout course. Make an LP or tape, with nice boppy tunes and croon instructions over the soundtrack in a reassuring, non-sweat-inducing voice. The COMPETITION MINION Workout. Eat your leotard, Jayne Fondue. This one could make me rich.

Ready? Sitting nice and comfortably and ready to work out computer gameplayers? OK, Firebutton finger first. Let's warm up. Raise that index finger . . . once . . . twice . . . three times. . . . And repeat the sequence again . . . one, two three. And again, one, two three.
RIGHT. Let's go for the SNOOZE. Feel those waves of tiredness oozing through you muscles. Feelszzzzz. Zzz Zzz Zzz Zzz Zzzzzzzz

MIRRORSOFT certainly jumped into the platform market with a well timed (and well-programmed) leap. Wallop! DYNAMITE DAN arrived in the CRASH offices. Thud! went Jeremy's Cheese Sarnie as the game loaded up. Wow! went everyone in the office except Poddie, Jeremy's dog who left off watering the rubber plant and went 'Wuff'. (It has to be a rubber plant — round here a Swiss Cheese plant would probably end up in someone's sandwiches.)

Crash Competition

DYNAMITE DAN WORDSQUARE

Find the following words in the square below:

DYNAMITE	AIRSHIP
DAN	CRASH
MIRRORSOFT	SMASH
PLATFORM	SAFE
JUMP	MANSION

L	M	O	S	G	E	C	W	E	S	H	R	T	O
Y	S	L	A	H	N	Y	I	F	S	B	E	N	D
N	A	H	F	I	H	A	C	A	R	F	T	F	E
S	M	L	E	I	R	G	M	N	E	T	S	H	F
A	I	R	H	M	W	S	C	S	I	E	R	O	T
H	R	E	O	U	J	M	H	D	T	R	U	A	I
S	R	B	L	F	E	N	O	I	S	N	A	M	R
C	O	A	L	A	T	N	M	Y	P	V	R	R	J
M	R	P	J	U	Y	A	R	O	M	O	T	D	S
C	S	A	N	F	N	D	L	H	U	G	N	M	F
F	O	S	S	Y	I	A	Y	P	J	F	L	A	C
E	F	U	D	H	O	A	N	N	L	M	S	S	L
P	T	O	S	O	N	R	S	D	A	D	N	H	I

NAME .....

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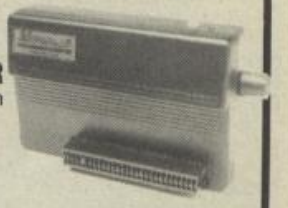

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ACTIVISION's

This month, we send John Minson into the dark recesses of Activision, one of the country's (nay, the world's) most successful software houses. There's more to the company than just Ghost-bustin' as Activision President Greg Fischbach explained — Leslie Bunder asked the supplementary questions.

ONE OF THE more recent developments in software has been the 'American Invasion'. Just when we Brits thought we had it sewn up with our *Manic Miners* and *Technician Teds* the Yanks were coming. Only that invasion never really seemed to happen as time and time again the trans-Atlantic threats revealed themselves to be shoot em ups that were two years out of date.

Activision intend to change all that. Sure, they were responsible for the frantic blaster *River Raid* and the caverns and ladders *Pitfall II* but as their President, Greg Fischbach, admits, those games are old, but they're classics.

'Activision's approach is to move the state of the industry. You can only have so many platform games. Yes, you can revisit them or have them as part of another game, but to repeat doesn't add value for the consumer.' Which has led to Activision refining some older ideas to look and sound better on one hand while on the other, developing totally original ideas. There was *Zenji*, for instance, a love it or hate it attempt to do Zen and the art of computer gaming. 'It was an attempt to do things the audience hadn't seen.'

Activision itself was formed in 1979, becoming Activision International Inc four years later when Greg joined. He's had a wide and varied career including Assistant US Attorney before entering private practice as a principal in his own law firm. Acting as a consultant to Activision started his involvement with the company and he's also been an advisor in the entertainment industry. It came as a pleasant surprise therefore to find how open and friendly this youthful and enthusiastic 42 year old is.

One aspect of Activision that he was keen to emphasise is its truly international nature. Operating units were established here and in France in '83 and Activision Germany has just opened. Since last year they've also achieved 'substantial sales' in the Japanese market via licensing deals. It seems that the much poo-poohed MSX standard is more at home in the land of the rising yen, where games are available on ROM cartridges. However, Greg doesn't see it succeeding here — yet! The threat to the Spectrum, et al, will come with MSX II or III, he thinks.

Returning to Europe, a product acquisition and development group has been formed to translate software for this side of the pond and, perhaps more importantly, to originate games here. One of the first fruits is *Tour de France* (for some obscure machine called the Commodore) which despite its Gallic theme and garlic atmosphere was developed in the UK. This is all part of the recognition that different parts of the Activision empire need different approaches.

'In the USA our strategy is to deal with larger computer memory. In Europe and Japan it's different.' Greg puts this down to radically different markets. 'They're going in two different directions. The USA is not a games market — it's a niche market.' By which he means mostly home and business applications like *Printshop* or *Music Maker*. 'For Britain, with its established distribution and marketing, the distributors will branch out and have other types of software — but the user will determine what the new uses are.'

One of the company's most recent successes has been *Ghostbusters*, which has already sold over half a million copies in its various versions. It led me to ask Greg about his attitude to tie-ins and it transpires that he has a somewhat privileged position. Based in Los Angeles and with many contacts in the Hollywood entertainment community, he gets to see scripts before they're even filmed. 'But since *Ghostbusters* I've only seen one film I thought suitable for a computer release. A game has to stand alone, and a tie-in can help sell it, but a duff product won't sell. *Ghostbusters* was sensational. It had the music, the voice — four or five hooks.'

Some people would disagree — were those hooks quite so sensational when translated to the Spectrum's limited sound capabilities? A good chunk of criticism has been levelled at the Spectrum version of *Ghostbusters*, but nevertheless over 100,000 Spectrum copies have been sold since its release last December. 'I think there was a lot of unfair criticism from the press,' Greg commented, 'what they expected was a bit hopeful. There was no way we could incorporate the *Ghostbusters* music in the Spectrum software because of the way the Spectrum's sound output works. It isn't able to produce three voices, like the Commodore, so without additional hardware it's not possible to get three voices out of the Spectrum. As far as gameplay is concerned, there's no major difference between the Commodore and Spectrum versions. We've kept all the hooks people enjoy, such as the graphics, speech and the way the game is played. Apart from the music, I wouldn't say there was a major difference between the two versions.'

Some people felt that *Ghostbusters* was overpriced at £9.95: 'Yes, but again that came from the press. If people thought the game was overpriced, do you think we would have sold over 100,000 copies? The public seem to have loved the game; as far as the pricing is concerned, we didn't get one single complaint from the public. For £9.95 you have a game you can play again and again.'

Naturally I was interested in Activision's attitude to conversions. Talking with the members of the British end of the operation, I got the idea that they too were worried about bad comparisons with Commodore versions (that thing again — I must ask *Ed* what it is), and are not averse to originating software for Sir Clive's brainchild.

As the occasion of the interview was a preview of pre-Christmas releases, it was interesting to see that only three out of seven will be available for the Spectrum. Too many games have proved impossible to convert. 'We look upon the Spectrum as a games machine. It's popular because of the machine and software prices. Programs went into the marketplace quickly and kids were soon writing for it. So despite the limitations of sound and colours, I don't think it is going to go away.' We can guarantee that, Greg!

Of these three releases, *Mindshadow* is an illustrated adventure in which you awake on a deserted beach having lost your memory. Though I didn't see enough of the game to be able to evaluate its originality, it claims to contain a special help character to assist and entertain the player, as well as the more usual logic puzzles.

Activision are pledged to adding depth to their games, so their forthcoming addition to the spate of boxing games comes with a strategic element as well as **Barry McGuigan**'s name attached. There are different fighting styles and training routines as well as more basic matters like the colours of your man's trunks (I always choose red — less likely to show the blood). It's been written by **Sportswar Productions**, a specialist house noted for such simulations, and Greg told me that its writer even went a couple of rounds in the ring to ensure accuracy! Your opponents even boast limited AI, changing techniques as the fight progresses.

Sport of the future is the theme of *Ballblazer* from **Lucasfilm Games**. It's the Hollywood connection again as the people who gave you *StarWars* (the movie) let their software wing create an ultra fast-moving ball game, taking place over the surface of one of those odd checkerboard planets with split screen views and lots of one or two player action. It looks great on the Atari, so let's hope the Spectrum version doesn't lose out.

Sadly, the innovative *Somebody's In My Computer*,

ACTIVITIES

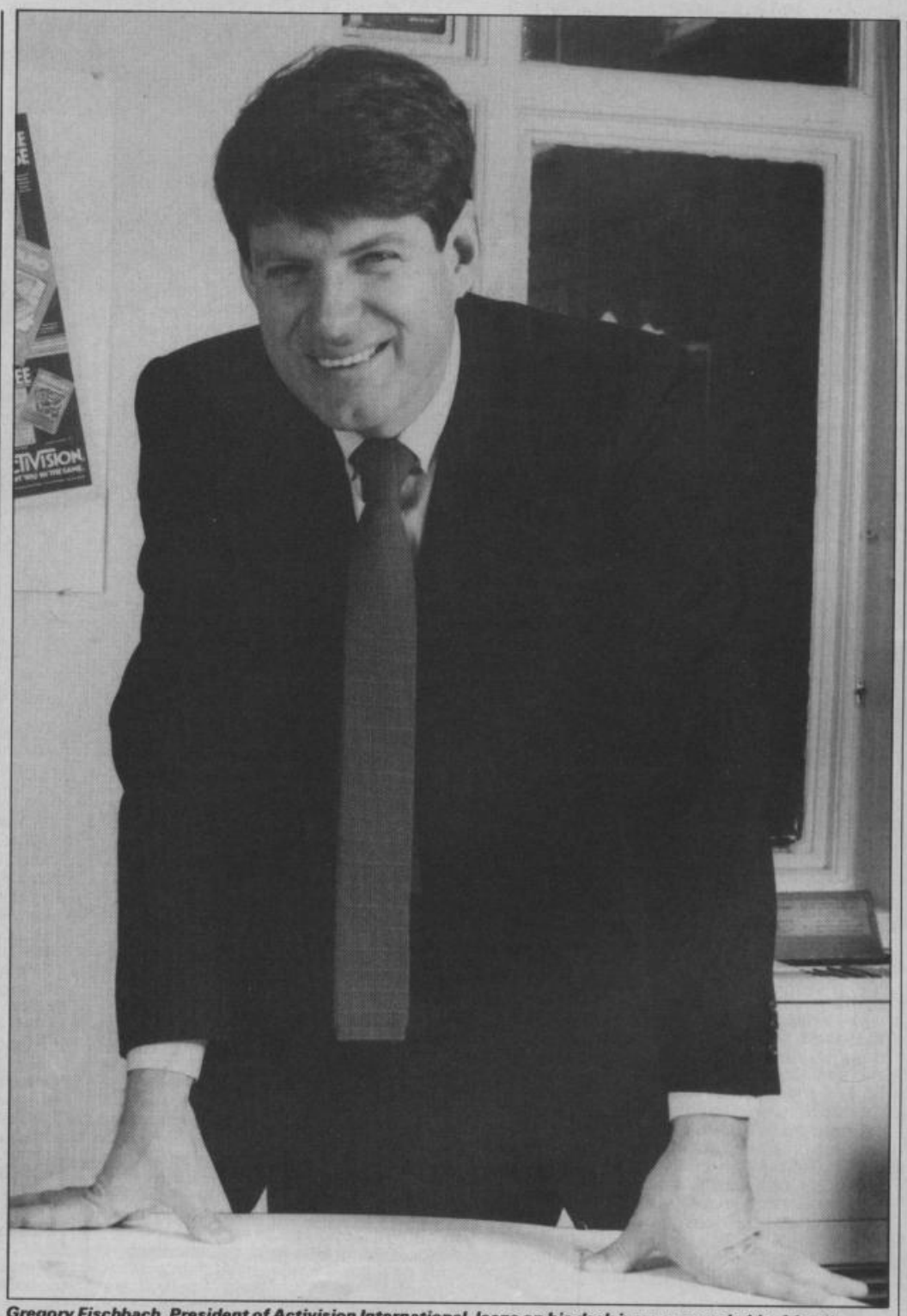
which opens a window on Lilliputian micro-squatters, is far too complex to convert, but *The Great American Cross-Country Road Race*, a release which adds route planning and speed-trap dodging to the driving game, will appear as *The Great European* ditto. This has created its own problems though. In America you just drive West till you fall in the Pacific — Europe isn't such a neat shape.

Possibly the most intruiging program not at the preview is provisionally titled *Music box*. While the joke at Activision's HQ was 'How do you get stereo sound out of the Spectrum?' 'Hold one up to each ear', valiant efforts have continued to provide our beloved if a trifle **quiet** machine with an equivalent of the Commodore success, *Music Studio*. While its capabilities are still to be finalised, being a matter of trading off features against each other as memory allows, it's 90% finished and sounds fascinating.

Meanwhile, Activision moves into its second five years with a positive approach voiced by Greg Fischbach: 'We try to push ourselves as leader and sometimes we stub our toe because we're willing to take the chances, because we're willing to offer the consumer something they've not seen before.'

Following our interview with Rod Cousens in the September Issue, news breaks that Rod's new company Electric Dreams **is signed to Activision. As this is being written, Activision are remaining tight lipped — the official announcement is due in a couple of weeks. They would reveal, however, that the tie-up fits in with Activision's long term strategy, which looks towards starting a second or maybe a third label, and Rod approached them some months ago .....**

Two titles for the Spectrum are well underway, and should be revealed at the Personal Computer World Show. With luck, and a following wind, there should be further details on the news pages of this issue.



Gregory Fischbach, President of Activision International leans on his desk in an approachable, friendly manner and says 'Cheese' for the photographer.

CRASHTIONNAIRE 85

THE RESULTS!!

A long, long time ago in an issue far, far away, we asked you some questions to help us determine how CRASH is seen by YOU the reader (actually, it was the March issue). It's taken quite a while to persuade someone daft enough to enter all the info into a computer to sort out the statistics, but finally Graeme Kidd's friend was offered a bribe and did it for us. Here are the results . . .

First off the age of CRASH readership. We broke the span up into several blocks — **2%** were under 10 years. 10-13 **25.35%**; 14-17 **50.47%**; 18-24 **10%**; 25-35 **9.29%**; and over 36 it was **4.06%**. The average age of CRASH readers was (hang on to your hats . . .) **17.23317591 years old**!

We asked you how often you buy CRASH. **90.94%** of those who answered said they buy it every month, while **9.9%** said occasionally and **0.68%** said they read someone else's copy — pirates!

One of the big questions was what other computer titles you buy regularly and how you rate them. The figures given for CRASH are bound to be a bit inflated as this **was** a CRASH questionnaire after all, but it still comes out rather well (modest coughs . . .). In order of popularity then followed by a percentage rating for what the magazine's readers think of it:

1 CRASH 86.59%
2 COMPUTER & VIDEO GAMES 64.7%
3 SINCLAIR USER 58.53%
4 YOUR SPECTRUM 63.48%
5 P. C. WEEKLY 60.28%
6 YOUR COMPUTER 58.17%
7 SINCLAIR PROGRAMS 50.96%
8 ZX COMPUTING 62%
9 HOME COMPUTING WEEKLY 52.18%
10 PERSONAL COMPUTER NEWS 59.66%
11 PERSONAL COMPUTER WORLD 75.6%
12 WHAT MICRO 53%

We asked you quite a bit about the reviews in CRASH, kicking off with whether reading CRASH has influenced your recent games buying; **75.78%** said YES; a measly **2.36%** said NO; and **21.85%** said SOMETIMES. Seems a fairly overwhelming vote of confidence, but did you agree with the review having bought and played the game? **15.91%** said ALWAYS; a more reasonable **78.66%** said MOST OF THE TIME; **5.2%** said HALF THE TIME; and an insignificant **0.24%** said NEVER (pooh to them).

We wanted to know what you thought of the length and detail of the reviews **11.15%** thought they should be longer; **3.44%** thought shorter, while the majority of **85.41%** thought they were okay as they are. Of those who thought there could be change, most (30.28%) thought they should be more detailed. You obviously like to have review ratings, an overwhelming **93.03%** said YES; only **2.56%** said NO and **4.41%** said they didn't know. Having said ratings are wanted, how does the CRASH system fare? **42.08%** said it's EXCELLENT; **51.02%** said GOOD; **6.06%** said AVERAGE and a paltry **0.84%** said POOR (double pooh to them).

How do the CRASH reviews stand up against reviews for games in other magazines? BETTER? Yes said **94.7%**, which is pretty staggering. **5.3%** said ABOUT THE SAME and only **0.55%** said CRASH reviews are worse.

Moving from reviews to other sections seen in comparison, we asked you to vote for each section's popularity, and here they are in descending order. Sadly the nurd who devised the questions went and left out Playing Tips, but never fear, subsequent answers will reveal all!

1 Reviews
2 Software previews
3 News
4 Competitions
5 CRASH Forum
6 Adventure Trail
7 General articles and features
8 Hotlines
9 Games Index
10 Signpost
11 Hardware articles
12 Contents
13 Editorial
14 Utility reviews
15 Advertisements
16 Programmer profiles
17 Frontline
18 Comic strips
19 Hall of Slime
20 Advertisers' index

This ordering produces few surprises, although we discovered not that many people enter competitions or vote for the Hotlines, but seem to think they are valuable anyway . . .

Voting for the Hotline went; **8%** EVERY MONTH; **34.93%** OCCASIONALLY and **57.06%** NEVER. Adventure chart was similar with **5.1%** EVERY MONTH; **20.09%** OCCASIONALLY; and **74.81%** NEVER. Comparing the Hotline charts with other types of chart we got **43.84%** said BETTER; **22.7%** said MORE FAIR; **14.95%** said RELEVANT. Some 17% thought they were less fair and worse than others.

We asked whether you like the Lunar Jetman comic strip and **55.63%** said YES; **16.59%** said NO; and **27.78%** said they were not bothered. With the Terminal Man comic strip we got **42.24%** saying YES; **25.65%** saying NO; and **32.11%** said they were not bothered.

In writing to the CRASH Forum, it again seems that less people write in than think it is valuable and enjoy it because only **4.3%** have written MORE THAN TWICE; **3.41%** have written TWICE; **11.48%** have written ONCE and the vast majority, **80.8%** have NEVER WRITTEN.

Onto Playing Tips, and the insufferable Candy now has a bigger head than ever! A staggering **90.11%** said they are VALUABLE; a barely visible **0.3%** said USELESS and **9.6%** said INTERESTING BUT NEVER USE THEM. This was echoed by the Tips game maps with **90.11%** again saying VALUABLE; **0.6%** USELESS; and **9.3%** saying INTERESTING but never use them. Candy thinks a lot of people out there have got taste . . . !

With the competitions we asked how you felt and **5.6%** said there are too many; **35.35%** said not enough; and a comfortable **58.76%** thought they are fine as they are. Somewhat better figures for general articles, with **6.7%** saying TOO LONG; **10.5%** saying TOO SHORT; but most people think we get them right with **82.76%** saying OKAY AS THEY ARE.

Signpost obviously hold a lesser interest for the majority with **45.57%** saying VALUABLE; **12.22%** saying USELESS; and **42.22%** saying INTERESTING but never use the tips.

We asked you what areas of CRASH you would like to see expanded. Once again Robin Candy comes out tops, with a **24.15%** vote for the Playing Tips, far and away the biggest slab — Reviews, for instance, the next most popular, received only 16%. Here is the order:

1 Playing Tips
2 Reviews
3 News
4 Software House profiles
5 Hardware/Utilities
6 Signpost
7 Adventure Trail
8 Programmer profiles
9 CRASH Forum
10 Hall of Slime
11 Frontline
12 CRASH Course

As we did in the previous questionnaire, we asked whether you wanted to see games program listings in CRASH. Last time we asked, 96% said NO. Slightly different this time: **16.85%** said YES; **82.08%** said NO and **1.06%** said they didn't know.

Finally we asked whether reading CRASH influenced you to actually buy games. **70.05%** said YES; **1.72%** said NO; and **28.23%** said SOMETIMES. Again, a pretty overwhelming result.

In case anyone is wondering whether most returned questionnaire forms came from CRASH subscribers and would consider this a favourably biasing factor, the returned forms came **26.67%** from subscribers and **73.5%** from non-subscribers.

This concludes the results of the 1985 CRASHTIONNAIRE! Make what you will of the statistics, we're giving them some hard thought as well. Meanwhile, turn to the Results Page if you returned a CRASHTIONNAIRE form — you could have won a juicy prize. . . .

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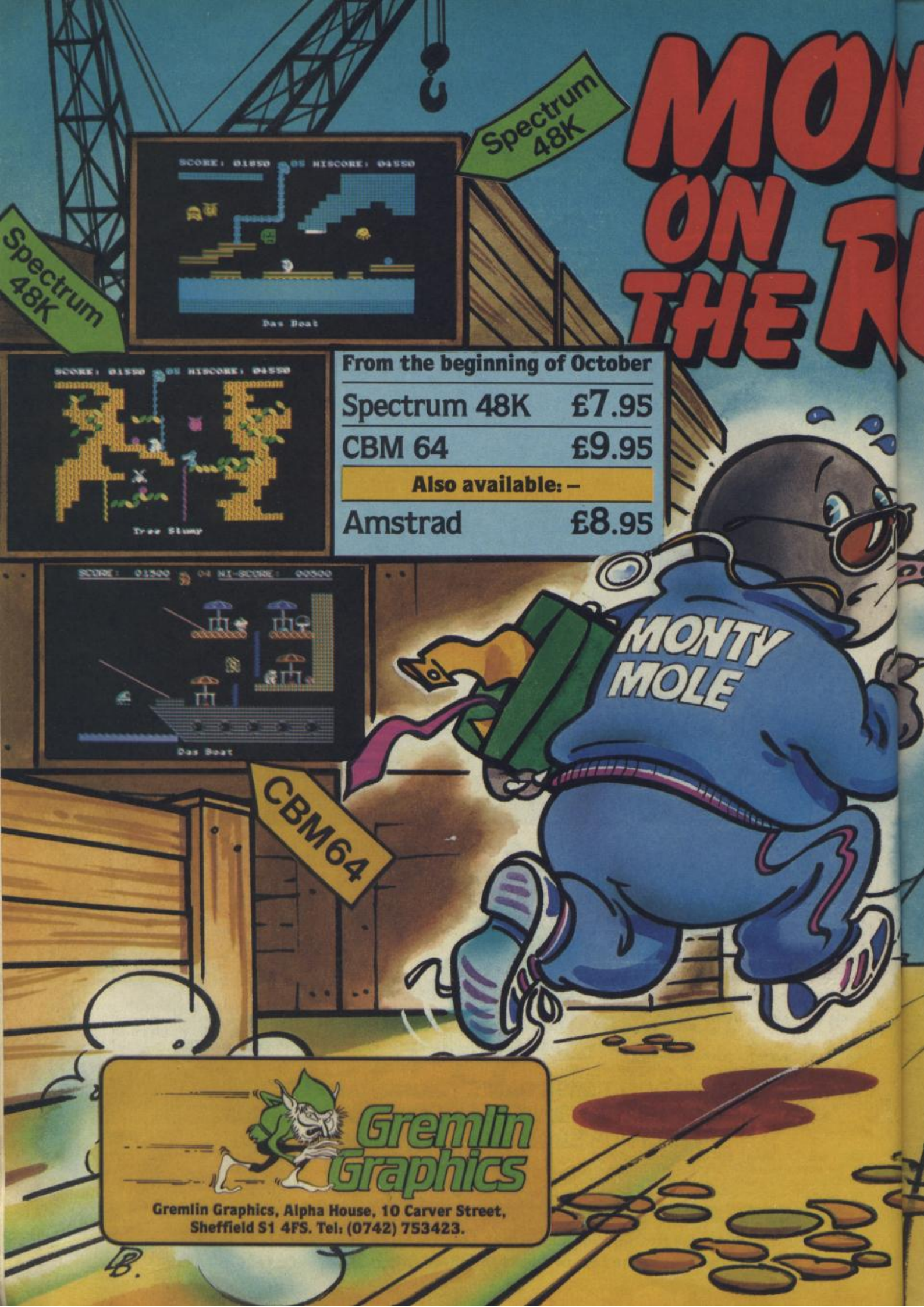
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Spectrum 48K

Super fit and desperate for freedom, Monty makes his daring escape from Scudmore Prison. Hounded by the bastions of law and order, our frightened hero finds refuge with the criminal underworld who offer him his chance to breathe fresh air and bask in the sunlight once again. Moving from safe house to hideout to underground lair, Monty must select the correct five elements of his freedom kit from the many he's offered and not miss out on the hidden gold coins that will make him a mole of leisure.

At last he's free but can he make the cross-channel ferry on time?

CBM64

CBM64

FROM THE FALUVIAN EMPIRE TO SCULPTING IN LIGHT

What happens to Gamelords when they desert the Faluvian Empire, and move onto new things? GRAEME KIDD tracked down CAROLINE HAYON and MARK EYLES who are currently doing something very interesting in a converted dining room in Southampton. . . .

Quicksilva, the software house, first came into being towards the end of 1980. To start with, the business occupied about half a table in the back room of a house on which **Nick Lambert** made RAM packs.

Mark Eyles, so the story goes, approached Nick and told him that he was an expert at weilding a soldering iron. After he had been shown which way round to hold one, Mark was hired and became Quicksilva's Creative Design Executive — responsible, among other things, for the creation of *The Faluvian Empire* and the *Gamelords Megazine*. **Caroline Hayon** was the third person to join Quicksilva, and was called upon to perform a whole range of tasks. One of Caroline's roles within Quicksilva was Chief Gamelord Droid, and she was overseer of the Gamelords Club which boasted more than 5,000 members at one stage.

Then the creative talents behind Quicksilva decided that they'd had enough: 'the structure of the industry was stifling their creativity' according to Quicksilva's Managing Director, Rod Cousens. Quicksilva was sold to Argus Press Software and the team disbanded when the new owners moved the company to London from Southampton. The members of the team have all followed different directions since the disbandment. Mark Eyles and Caroline Hayon have formed a partnership and set up **Holografix**, a company which produces holograms — three dimensional images recorded on film using a laser.

Holografix is a young company and, in true Quicksilva tradition, it is run from a house in Southampton. The dining room has been specially converted to a holographic studio, and work is beginning to come in. Visitors to this year's Personal Computer World show will be able to view holograms commissioned from Holografix by Melbourne House to promote their new Lord of the Rings game, and three winners of the Glass Competition in the August issue of CRASH will soon have their very own hologram of a space ship, produced by Mark and Caroline.

Perhaps the most familiar form of hologram is the one that can be found on credit cards and forms part of some software packaging. These are not particularly good examples of the holographer's art, because they are in fact mass-produced holograms, created by a special printing process which embosses the silvery plastic on which they appear. The better holograms are either 'printed' onto a special film or projected into space using laser light. While there are a number of exhibitions of holography, including the permanent one staged by Light Fantastic in London's Covent Garden, holograms are still a comparitively rare commodity.

Holografix, as a business, came into existence at the end of last year but quite a few members of the Quicksilva team had developed an interest in holography while the company was based in Southampton, and at one stage the idea of setting up a holographic studio was discussed. Mark and Caroline began collecting together equipment, scrounging what they could and making do as best they could. Finally, they decided to go into partnership producing holograms around Christmas last year.

Holography is a tricky business which can rapidly get expensive. Apart from a laser, you need an isolation table on which the laser, mirrors, lenses, holographic master and subject are arranged before the exposure can be made. This table has to be be very solid indeed and the whole process requires a degree of accuracy so critical that the slightest movement in the room during the exposure of the hologram can ruin the outcome.

While you can spend a fortune creating a holographic studio, there are ways to reduce the initial capital outlay . . . in the case of Holografix, the dining room of a terraced house in Southampton has been taken over and modified. The floor was taken up, and a large quantity of concrete poured onto the ground to make a solid base. On this rests an old typesetter's table — several tons of metal resting on six legs — and each leg of the table rests on a sheet of heavy duty plywood which in turn is supported by a partially inflated Mini tyre inner tube. Thus are the vibrations caused by passing lorries absorbed, and the £5,000 cost of a purpose-made isolation table avoided.

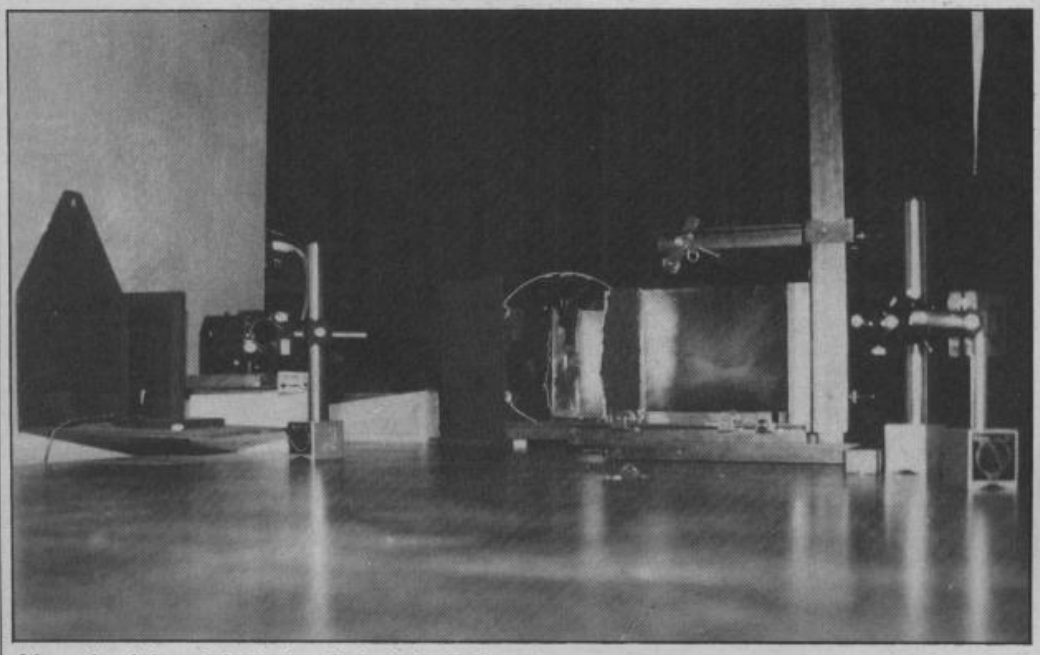
The original model and the Image Plane Hologram made from it for Melbourne House's stand at the PCW Show.

Not really a hologram. This is the model of a spaceship used to make the holograms for the Glass Competition in last issue, lit by the light from the Holografix laser.

The mirrors and lenses used to control the laser light are mounted on heavy stands containing magnetic clamps. Once a piece of apparatus is in position its limpet-like clamp can be activated and for all intents and purposes, the stand becomes part of the table. It can take a day to set the table up to produce a single exposure, as the distances between the components in the set-up are critical to the end result.

When the apparatus has been set up to make a holographic exposure, the curtains surrounding the isolation table are drawn, the dining room door is closed and Mark and Caroline withdraw to another room — the whole process is so sensitive to vibration that someone coughing in the studio during an exp-

Mark and Caroline make a few adjustments to the equipment on their Isolation Table — other people have candlesticks or wineglasses, or bowls of fruit on their dining room table....



A Laser-level view of the Holografix Isolation Table, showing the stands used to hold the lenses and mirrors used to guide the laser beam.

osure could ruin the end result. They have a cup of tea, waiting until the whole apparatus stabilises, and then press a button which opens a remotely controlled shutter:the exposure is made.

A lot of variables are involved in holography — the resolution of the emulsion on the plates lies in the range of 3 - 5,000 lines per millimetre. Apart from unwanted vibrations and movements of air during the exposure, the length of the exposure, the mix of chemicals used in processing, the time the plate spends in those chemicals and even the number of times the plate is wiped with a squeedgee during the developing can all affect the end result radically. 'There are a vast number of things that can go wrong', Mark explained, 'there are so many different parameters that all you can hope to do is narrow the range of results you produce by experience. It's still very difficult to produce two holograms of the same subject which are identical — there's a huge amount of technique to learn'.

The object, or model, which is being hologrammed has to reflect light well — and is generally painted matt white. Virtually everything else in the room is painted matt black. While the shape and reflectivity of the model affects the outcome of a hologram, you can only learn by experience. Mark and Caroline must be amongst the few people in the world to have actually photographed paint drying! (Well, hologrammed, then.) While they were making the hologram for Melbourne House, they touched up the paint on the model's eyes. When they exposed the hologram, the paint had not dried completely and the movement of the paint as it continued to dry during the twenty seconds or so of exposure produced dark patches on the image in place of the clear and shiny effect needed.

Holography is still in its infancy — it's reached the stage that photography had at the turn of the century — and Mark and Caroline are amongst the pioneers, at the forefront of development, adding to their pool of holographic knowledge daily. They have spent around six months experimenting, building up a portfolio of holograms and it is only recently that they feel they have got up to a sufficiently high technical standard to start accepting commissions. There are three elements to commercial holography,' Mark explained, 'all the time you are learning about the art and technical side, you are actually making holograms and you also have to get work'.

Caroline and Mark are understandably enthusiastic about holography: 'It's totally revolutionary in terms of presenting images', Mark enthused, 'it's the first major development since the Renaissance when artists moved from flat drawings to painting with perspective. You interact with holograms — you need to learn to look at them, to look around them and to move. They are a different medium to an ordinary photograph or painting and are not just pictures in 3D.'

'Producing holograms, you're literally sculpting with light, not just making a representation of a model. By altering the variables in the process it is possible to produce a range of effects.'

There are no more than a dozen studios in this country producing holograms commercially, and there is, as yet, little formal training available for would-be holographers. The Royal Photographic Society has a holography group which meets intermittently, and the Royal College of Art is starting a postgraduate course this academic year — but that is for people who can prove they have a serious interest and can offer appropriate qualifications. At the moment, holography is just coming out of the experimental phase of development — basement studios set up out of hobbyist interest are turning commercial, and the first few people are starting to make a living out of holography.

You don't need to spend a fortune to set up a holographic studio — with a little ingenuity and a modest cash outlay it should be possible to get together the apparatus needed to produce small holograms for under £1,000. Apart from the laser, (which you might be able to borrow from a school physics lab) the basic equipment used in a studio could be begged, borrowed and improvised on a very low budget. 'I would recommend one book to anyone who wished to find out more about practical holography', Mark said, 'we owe a great deal to The Holography Handbook, published by Ross Books in

California — it contains a wealth of useful technical information and tips on how to improvise. And if anyone is seriously interested in the subject, feel free to drop us a line.'

Both Caroline and Mark can see parallels between their involvement in holography and games software: 'It's a bit like the start of Quicksilva', they agree, 'holography has reached the stage games software had a few years ago. It's a completely different sort of market and product, and is still like the early days of computing. Holography is going through a transition stage with new companies starting up. Our main asset is our expertise — rather like with computer software — only we're not recording programs on tape, we're writing them. . . .'

There's a great future for holography. Mark elaborated: 'With holography you're basically storing information using light. The potential for applying holographic techniques and lasers to aspects of life is immense. Industry uses lasers for stress testing, for instance, to record the minute movements in materials put under stress, and a record of objects can be kept using holograms rather than the originals — patterns for dental plates, for instance, can be stored as holograms rather than as casts. Maybe there'll be computers with optical components one day — holography is a solution looking for problems . . . '

'At the moment, making a hologram is a complicate process — but one day the holographic equivalent of a Box Brownie may become available — who knows? At the moment, the range of subjects that can be hologrammed successfully is limited — they have to be solid objects that will reflect light and not move during the long exposure. A very powerful (and very expensive) pulse laser could be used to make holograms of less solid objects, but holographic portraits of people aren't on — you'd damage them too much in the process!'

Mark and Caroline haven't severed all their contacts with the software industry — they were about to leave for Holland, where Mark is assisting a Dutch software house to produce games for MSX machines. 'I'm still involved in games designing, and have been writing sleeve notes for **Electric Dreams**' programs for instance. Holography is the main thing now, but we like to keep a toe in the water — we can't just forget about the software industry.'

Obviously the duo learnt a lot of useful things about funding, setting up and running a business when they were at Quicksilva, but Holografix is a totally new venture, in a totally new field. It's clear that both Caroline and Mark enjoy the challenges presented by breaking new ground and getting involved in something new. Quicksilva's approach to the software industry was innovative and radically different at the time — and a lot of the fun involved in producing and marketing Quicksilva games was communicated in the company's approach to the industry. With the changes that have taken place in the software industry in the past couple of years, it's hardly surprising that the personalities which formed the core of Quicksilva decided to move on to pastures new.

For Mark and Caroline, those pastures are laser-lit. What is the future for Holografix and holography as an industry? The last words go to Mark: 'It's fun having complete unknowns — life doesn't get boring if it's totally unpredictable. Ask me in two years time . . . and I'll tell you what it was like.'

Holography is the process by which light reflected off a solid object can be recorded onto a film or a glass plate in such a way that a fully three dimensional image of the object is re-created when the hologram is viewed. Although the theoretical principles which lie behind holography were first outlined in 1948 by Dennis Gabor, it wasn't until the laser was invented — in 1960 — that those theories could be put to the test, because holography, unlike photography, cannot be done with ordinary light.

A laser produces coherent, or very organised light. Natural light, or light produced by an ordinary bulb or flourescent tube is very disorganised, in that that it contains a number of wavelengths all of which are out of phase with one another. If you shine natural light through a prism, it is split up into its component wavelengths — which appear as the spectrum. A laser produces light which has a single wavelength, and which is very intense because all the waves are in phase.

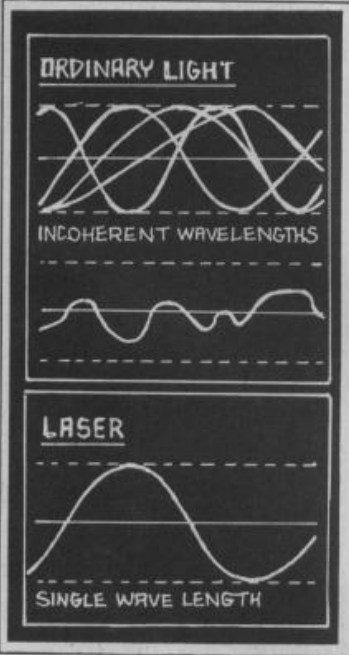
LASER stands for Light Amplification by Stimulated Emissions of Radiation, and works by producing light in a tube filled with gas — rather like a flourescent light. Mirrors at the two ends of this tube reflect the light produced back to one another. One mirror is not fully silvered, and the light travels up and down the tube, gaining in intensity until it is strong enough to escape through the partially-silvered mirror, when it is emitted as a powerful beam.

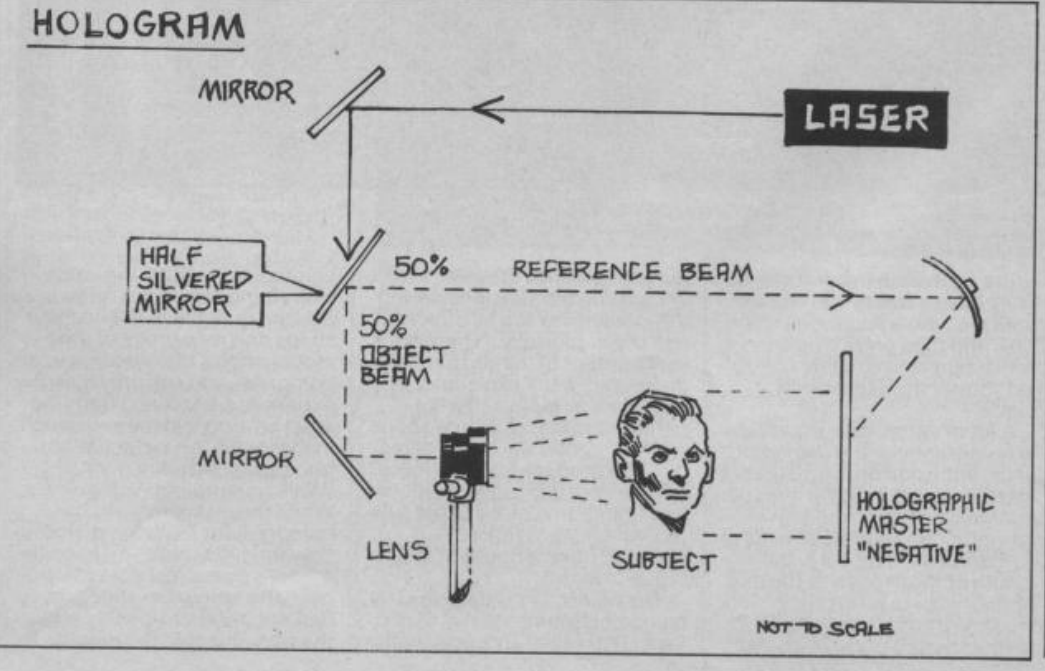
The lightwaves in a beam of light emitted by a laser are all in phase, and do not interfere with one another. To make a hologram, a beam of laser light is split into two — one beam is used as a reference beam and is projected onto the film being used to make the holographic master or 'negative'; the other beam is shone onto the object being hologrammed and is reflected onto the 'negative'. The holographic image is recorded onto the 'negative' and represents the interference patterns produced between the reference beam and the beam reflected off the subject.

The distance travelled by the reference beam and the beam which is reflected from the object is critical — light arriving at the plane of the 'negative' from the reference beam and from the subject has to travel the same distance in order to create the holographic interference patterns.

If you then shine a laser beam through a holographic master, a three dimensional image of the object is projected into mid-air which you can walk round and view from different positions in the same way as you could have viewed the solid original subject. Not everyone has access to a laser, so holographic 'prints' can be made — and it is these holograms which can be framed, hung on a wall or used as part of an exhibition stand at the Personal Computer World Show!

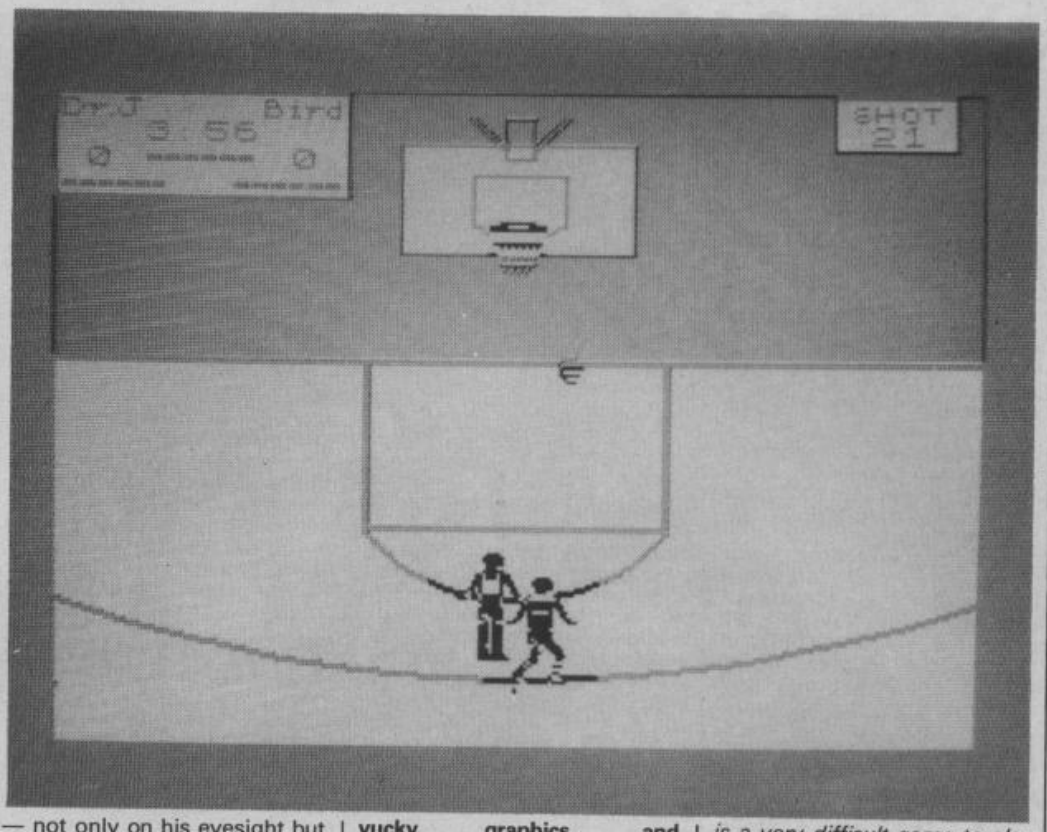
When you view a hologram under white light, the information recorded in the emulsion of the film reflects light in such a way as to produce a three dimensional image. A *Reflection Hologram* (the type made for the Glass Competition prize) produces an image which is positioned so it appears to be floating in space behind the film or glass plate; an *Image Plane Hologram* can be produced so that the image is positioned behind, through or in front of the film or glass plate, and produces a full three dimensional image. *Rainbow Holograms*, like Image Plane Holograms can be produced so that the image appears behind, through or in front of the film or glass plate and it is possible to look round the image from side to side but from top to bottom the image changes colour through the rainbow.





ONE ON ONE

Producer: Ariolasoft
Memory required: **48k**
Retail price: **£8.95**
Language: **machine code**
Author:



The last game that we reviewed from Ariolasoft was *Archon*, a sort of chess/wargame. Their new offering is a basketball simulation. The only common factor between the two games is their American parentage. Both games are hits in America on the Apple, and have now been converted for the Spectrum.

One on One is not a full simulation of Basketball — instead it simulates the traditional two man American game where one all American boy takes on another all American boy in a mini competition. Clearly Dr (of Basketball?) Julius Erving and Larry Bird play this type of game a lot. They are the chaps who advised on its technical content and they also feature as the two players in the game. The idea of the two personality players allows you to add a little variety to the game, since the computer can be asked to adopt one of the two programmed personalities while your chap takes on the other persona. Erving (in white strip) is quicker at getting to the basket and has a much longer reach while Bird (in the blue) is bigger and stronger and tends to play a more intimidating game.

You can make your player move left/right, forwards/backwards and, when the time is right, jump and release the ball. The opening menu allows you to select which controls you want, keyboard or joystick. But before you begin there are a number of other options that also need to be set up. First, you can choose the type of rules under which you want to play. The easiest option — park and recreation — means that the referee is blind. The fourth and hardest level is Pro, and in this mode sneezing out of turn could lead to a penalty. Another option lets you decide who is to have possession of the ball after a point has been scored, either the winner or the loser of the point. The game can be played either until a set time has been reached or until a set score has been achieved. The timed game gives further options allowing you to decide how long a quarter will be: 2,4,6 or 8 minutes. The time remaining in a game is displayed on the master score board during a match.

A list of possible fouls comes with the documentation, but how strictly the rules are enforced depends on the referee — not only on his eyesight but also on how reliable he is. Another factor that will affect your player's performance is his level of fatigue. The more running and jumping that you make him do the more tired he will become, and he will begin to slow down. The fatigue level for each player is shown by two thin blue bars at the bottom of the screen. If your player is getting very tired and slow you can reduce his fatigue level by a bit of gentle dribbling (!) or by calling a time out.

CRITICISM

●**'After seeing the picture on the back of the package I was expecting a good game. However, when I loaded the game I checked the picture again and discovered that it was a CBM 64 screen shot, of course!** *One on One* **suffers from rather yucky graphics, and monochrome players that don't move at all well. The game was neither addictive or playable. On the whole the graphics are a let down for a game which offers so many options.'**

●*'When I saw this game in the In Tray I was pretty excited, after all I was growing a little bored with* Matchday. *However after loading it I quickly changed my mind. The graphics are apalling — this game gets the prize for attribute clash. One of the men is supposed to be wearing a white shirt but he looks like he has got a hole through his chest — you can see the court markings right through him! To make matters worse the characters look as if they are walking on the moon. When I actually got down to playing the game I was horrified to find that the other player could nick the ball without being anywhere near me. All in all this is a very difficult game to play and I just don't think that it's worth the effort trying.'*

●'This is my first attempt at a basketball game and I must say if this is anything to go by it will be my last. The game is slow, boring and silly. Shooting and stealing seems entirely down to luck and the sound is terrible.I also found that the opening menu, where you are expected to set up the game options, was very complicated to use. They only good thing about the game was the package it came in, but it would have been a good idea to have included some basic basketball rules.'

COMMENTS

Control keys: Dr J's: left/right Z/X forward/backward Q/A to jump and release C. Larry's: left/right N/M forward/backward P/L to jump and release B
Joystick: Kempston and interface 1
Keyboard play: fair
Use of colour: poor
Graphics: very poor
Sound: poor
Skill levels: four
Screens: one
General rating: buying this wouldn't be a good way to spend your money

Use of computer	49%
Graphics	30%
Playability	37%
Getting started	38%
Addictive qualities	40%
Value for money	30%
Overall	**39%**

SUPER SAM

Producer: Budgie
Memory required: **48k**
Retail price: **£**
Language: **machine code**
Author: **R Stevenson and P Durbridge**

Alligata have decided to add to the proliferation of budget priced software by setting up a new software house, to be known henceforth as Budgie. The first two titles to be released fall into two categories: *Super Sam* is an arcade adventure while the second title, *Convoy* is a strategy game.

Super Sam is set in the midst of a dark and forbidding castle. Confined within this fortress is a chap called Boris. Now Boris is a rather slippery character, and his capture is the object of the game. The only way Boris can be restrained is by trapping him in a cage, and you have a problem. The cage needs to be assembled from eighteen component parts which are hidden within the castle waiting to be recovered.

Most of the rooms within the castle are pretty straightforward having a backdrop, possibly with a door which may or may not be an exit. Nearly all of the rooms have manholes through which your man can fall to his death, unless it happens to be an entrance to a secret passage. Some of the other rooms look more like mazes, and in such rooms you may have to find a hidden path through a wall in order to get to an exit or an object.

No matter where you are in the castle you will find yourself continuously being hampered by a wide range of little bods, some of which look very much like our flat hatted hero Sam would if he rode around in a pedal car. Others resemble police persons waving tickets or even top hatted gentlemen. Looks aside, all of these little chaps are a real pain: as you wander around trying to pick up bits of the cage, they will home in on you and if they succeed your energy will be drained. The energy bar at the top of the screen will decrease rapidly with collisions and each time it falls to zero you lose a life. When you have lost all three lives you have lost the game.

There are some quicker ways of being killed — falling down a manhole or walking into a boobytrapped room, for example. Don't worry though, it isn't all bad news. If you live long enough you may come across an object that will afford you some protection against the castle's inhabitants.

You don't win or lose points in this game. Complete your task and you won't be rewarded with a score; instead the game keeps track of how long you take, so if you find that you have gone through a door that takes you outside the castle walls then you will have to get back in as quickly as you can. Unless of course — having had a taste of life inside — you would rather remain outside.

Staying away from the holes isn't such a problem, but those peddle cars are such a pain, even for SUPER SAM. Eek!

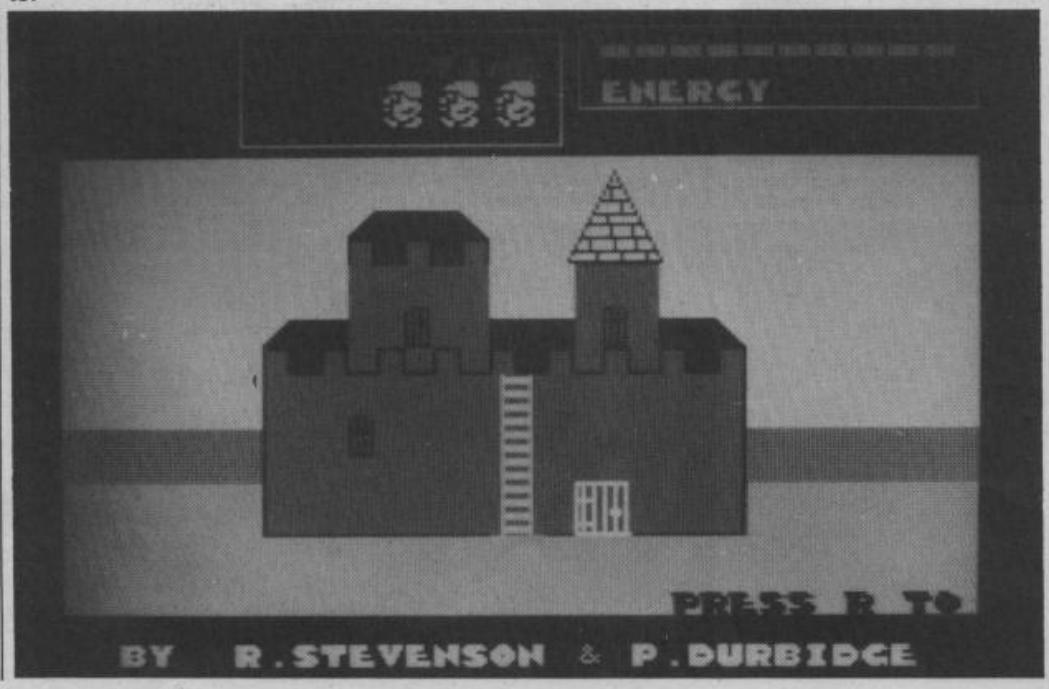
CRITICISM

●*'Super Sam* **is a very disappointing start to what promises to be an interesting range of budget software. There really isn't anything about it that I like. The controls respond poorly — especially when one is using a joystick — and the graphics are very poor. This game is simply not up to the standard being set by other budget price software houses. While this is a difficult game to play, I'm sure that it won't be long before you become frustrated and simply decide to chuck your stick in.'**

●*'This is what could be described as an incredibly flat 3D arcade adventure: the playing area doesn't go very deep into the screen. Consequently, the game is very difficult to play since you have to run round the various nasties to delve further into the game. It hasn't been particularly well programmed, either. In certain situations your movements are thwarted by the presence of overhanging walls, while in real life you would be able to walk under them. The game isn't much fun to play either — it's just a simple collect-the-bits-and-escape of the sort which would have been new two years ago. It might be cheap, but there are other games cheaper which are a lot more fun to play.'*

●'Once again we're presented with the worn out flip screen arcade adventure scenario. The advantages of arcade adventures is that the programmers have had the chance to learn from everyone else's mistakes. No such luck this time. The whole game is slow and the sprites flicker terribly. The background graphics are average which makes them the best feature in the game. The sprites are small and indistinct with what looks like two frame animation. The effect I liked best was when Sam drops down a manhole and falls into the sewers. These were the only smooth graphics in the game. I'm afraid that after looking at the quality of recent budget software that Sam doesn't make the grade.'

Can our hero, SUPER SAM, penetrate the dark secrets of the castle and capture the evil slithery Boris? Would you want to?



COMMENTS

Control keys: all definable
Joystick: Kempston and any key dependent
Keyboard play: poor response
Use of colour: poor, all of the characters are in white, they still clash
Graphics: very simple, below average, even at this price
Sound: limited
Skill levels: one
Screens: 34
General rating: because of the low price — fair(ish)

Use of computer:	67%
Graphics	55%
Playability	47%
Getting started	60%
Addictive qualities	43%
Value for money	40%
Overall	**42%**

GSH

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Robin Candy dashes up to Dudley where GARGOYLE GAMES hangs out and grabs a sneak preview of . . .

MARSPORT

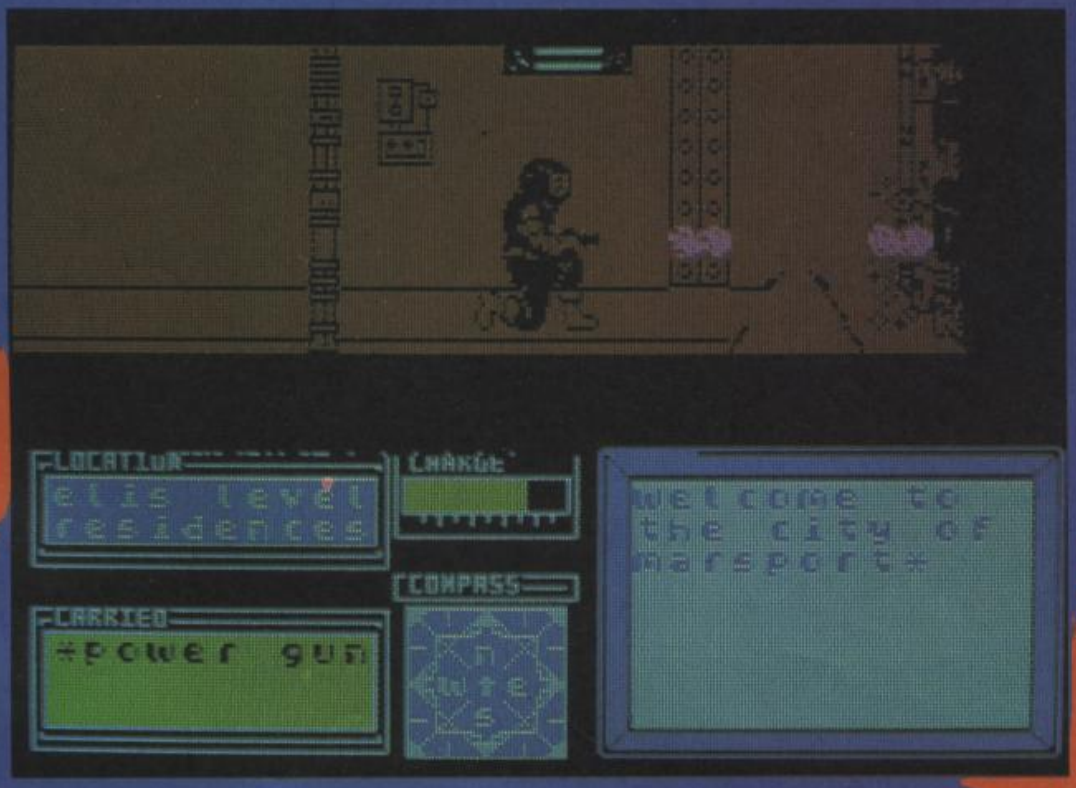
The year is 2424 and all the Galactic Empire of Man's forces are contained within the Earth-Moon Craig sphere. Marsport is occupied by the Sept; Doctor Muller is killed defending the City computers. The Siege of Earth has begun . . .

The year is now 2494. For seventy years, the earth has been under siege by the Sept. Since the siege began, the Sept have been kept at bay by a huge sphere of force, which surrounds both the Earth and the Moon.

Following the loss of Calcutta, it is obvious that the Sept will shortly have the capability to breach the sphere unless the force field can be strengthened according to the instructions contained in the original plans.

Unfortunately these plans are thought to be hidden somewhere amongst the City Computers of Marsport. Evacuated shortly before the siege, Marsport is now occupied by the Sept of the Warrior caste as a command outpost.

Commander John Marsh now stands in Marsport, at the exit of the access tube to the Space Field, in the belief that a determined man can sometimes achieve more than an army . . .
The siege of Earth continues; the fight back has begun!



Marsport is the first in what is to become Gargoyle's *Siege of Earth* trilogy. It is something of a departure from the lands that Cuchulainn the Great roams. Your mission is to locate the central computers and escape from Marsport with Doctor Muller's plans for strengthening the Craig sphere that protects Earth; but even though there is a change in scenario Gargoyle Games have thankfully kept the seven character high hero. This time he is wearing a space suit and has changed his name to John Marsh, Commander John Marsh

The style of play is similar to that of Gargoyle's other graphical adventures except the problems have been made even harder to solve. In both *Tir Na Nog* and *Dun Darach* crucial objects were gained by finding a less important object which might open a locked door and give access to it but *Marsport* has an added dimension to problem solving — you have to make some of the objects. This is done by taking two objects which might seem to have a connection, a knife and fork for example, and putting them into a **Factor unit**. Now just wait and see what you may get.

As in *Dun Darach* your mission takes place within a city but instead of being on a flat plain *Marsport* is best described as being a tower block with lifts to take you to the other levels. One main difference, though, is the lack of shops. *Marsport* has various types of locker units fixed on the walls. Into these objects can be deposited or retrieved from them. The **Supply units** are your prime source of objects, these are continuously replenished. The lockers can be used for storing objects. **Charge units** are a source of power. The **Key stations** require the insertion of an object. Should the right object be inserted then the nearby wall unit will open and the object inside can then be taken out. **Vidtex units** provide useful information which is displayed on the Vid screen in the status area.

The **Factor units**, as mentioned above, are used to put objects together. The final type of wall unit is where the Servobots live. As you approach a wall unit it opens to reveal its contents (except for units housing Servobots), but if a unit is 'locked' then it will close again as soon as you get near it. It is no use trying to catch it out, the correct object must be put into the nearby key station before you can get at what is inside the locker.

Like the lockers the lifts are programmed to tantalise, they don't necessarily go to the next floor above or below. This can be very frustrating as you see an object flash by that you need but you can't stop the lift, get out and get it.

Controlling the new futuristic hero is almost identical to the way Cuchulainn was controlled in *Tir Na Nog* and *Dun Darach* but the four corner keys are now used for firing weapons, should you have one and provided it is charged up. This violent element is yet another important addition; to make the game instantly more appealing and playable for all who get bored with Cuchulainn-style striding you can hunt *Marsport* for the little aliens and then zap em — but first there's the relatively simple puzzle to solve of finding and powering up a gun. If you get a bit too trigger happy then its energy will run down and will have to be recharged.

As you might expect the graphics are well up to Greg Follis's usual standards — just watch John Marsh shoot, it is one of the best animation sequences ever seen on a Spectrum. In *Marsport* the 3D has been made more apparent than it was in *Dun Darach*. Your character can now walk behind posts and support struts and when he fires his gun the laser fire also disappears behind the support struts which makes the 3D more realistic. As Roy Carter pointed out to me, there is a sort of 3D involved in *Dun Darach*, the other characters either walk in front or behind you depending on the view selected but this isn't quite so noticeable, largely because Gargoyle's masking technique is so good and the flurrying figures so well animated that it hides the effect.

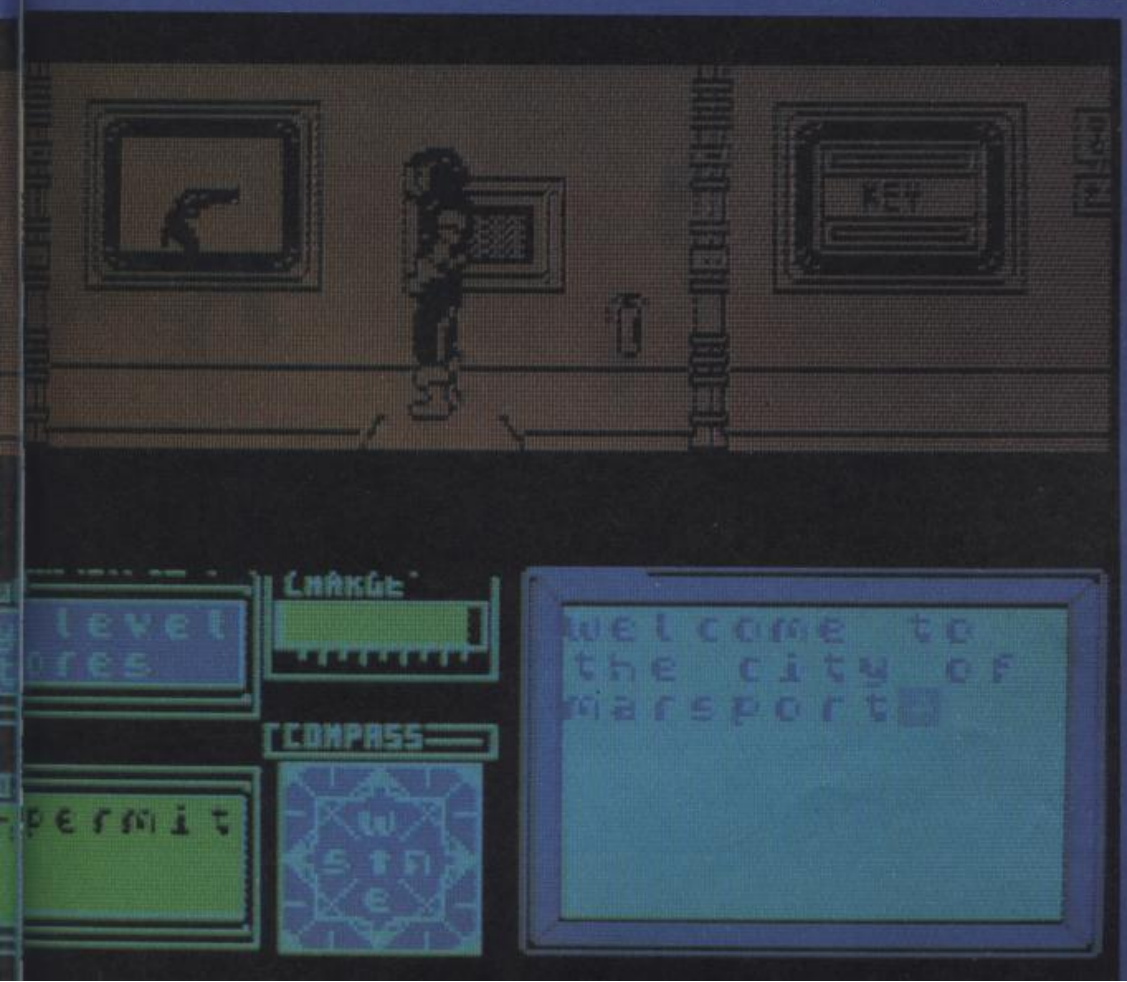
At the time of writing all that is known about the aliens is that there is going to be 'One big one and lots of little ones'. In our pre-production copy all the servobots and Wardens have been programmed in but the little aliens (they may be small but they sure are deadly) look like a cross between a Sidhe and chimp but when the game is released they will be somewhat different, I'm told. In fact being frustrated one day, Greg Follis started to play around with the Sidhe and managed to get one goose stepping, I wonder whether we will see one in a future game?.

Mentioned earlier were the Servobots and Wardens. The Servobots are little spherical robots that appear to do no harm (they have a purpose Greg hints mysteriously) but the wardens are a sort of up-turned flower pot that describes several little circles around you before killing you in a puff of pixels.

Marsport offers many challenges to both the arcade/adventure ace and mappers. The problems should prove, if anything, much more difficult than those encountered in either *Tir Na Nog* or *Dun Darach* and mapping *Marsport* will be a real nightmare, it would probably be easier to build yourself a 3D model as you go along. When we saw the game, some details about exactly what would be in it were not finalised so you can expect some surprises.

One last word — plan your strategy well. Time is of the essence — get it right and *Marsport* goes up with a bang, get it wrong and you could be right in the bang.

***Marsport* from Gargoyle Games will be on sale from the end of September (Spectrum version) priced £9.95.**



PREVIEW

MAROC MEETS THE S

Q: What do you get if you cross *Dragontorc* with *3D Lunattack*?

A: Seiclone.
But Seiclone isn't Hewson Consultants' latest game, *Astroclone* is . . . well it is now . . . . .

Over a year ago Steve Turner was asked by our erstwhile Ed Roger Kean what his plans for the future were — Steve replied that he would like to do another Seiddab game but using the routines and ideas created for *Avalon*. And so, a year and a game later, Seiclone was born.

Seiclone was the original name dreamt up by Steve for his latest project. Unfortunately Seiclone sounds rather like Vortex's follow up to *TLL*, *Cyclone* . . . . so to avoid confusion, Steve's game is now called Astroclone.

Before *Avalon* and *Dragontorc*, Steve Turner wrote three games for Hewson, which formed the Seiddab trilogy. Each successive game in the trilogy was graphically better and more complex than its predecessor. All three were shoot em ups in which you fought the Seiddab in a bid to save life, the universe and everything. Then came *Avalon* and *Dragontorc*, radical departures from the Seiddab games. Now there's *Astroclone* — a very effective merger between Steve's two different types of game.

The Seiddab trilogy begins during the great asteroid rush. Just like the American gold rush, precious metals had been found and prospectors raced to make their fortunes. This time, though, the asteroid belt around Jupiter was the source of precious minerals. Only a few successful prospectors returned with a fortune. But such are men's dreams that the tide could not be stopped.

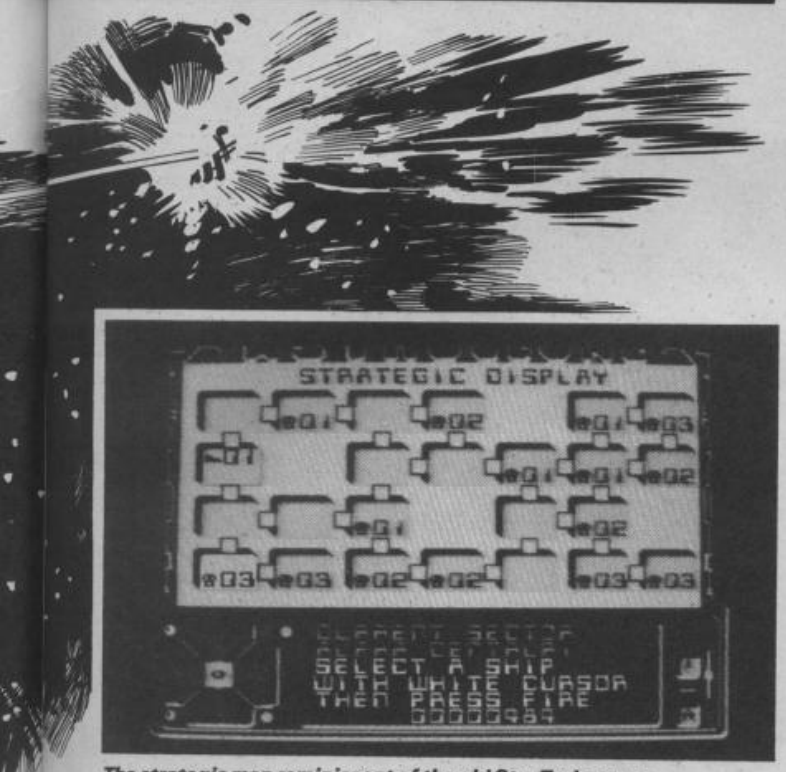
Callaghan was one of the first few to return with the valuable metal. With the gold fever in his blood he spent every spare dollar he had on equipping the latest Y-class mining vessel for his return trip . . . .

The year 2005 AD saw a great change around for the Earth and its people's prospects. After a long month, searching for another fortune, Callaghan was returning to the planet Artenis when his magnetometer registered a strong magnetic field. He gasped — the rock must be solid iron. The planetoid loomed large before him. It seemed so regular in shape. He stared in amazement as his landing lights revealed metallic structures stretching across the planetoid's surface. One by one a hundred lights flicked on illuminating strange objects. A craft emerged. Something flashed. Callaghan immediately recognised the colour of an Argon laser bolt. Instinctively he threw the ship upwards as the deadly beam struck home. Switching the engines onto full vectored thrust he leapfrogged

Your fighter battling with a Seiddab cruiser.

An Astroclone inside one of the Seiddab bases.

SEIDDAB



The strategic map reminiscent of the old Star Trek games.

backwards over the alien craft until it was centred in his sights. He thumbed the fire button, once, twice. As the alien ship exploded in a plethora of shimmering sparks his craft was thrown backwards, out of immediate danger. The Seiddab Space Wars had begun . . .

The death of the alien craft didn't go unnoticed. Twenty five light years away, the automated defence system of a dead civilization responded to its first contact with life for a millenium. Eight deep space cruisers piloted by alien machines prepared for war and made the hyperspace jump. Generators screamed as lasers charged up, and a few minutes later the debris of the planet Artenis spun in every direction. Battle computers requested support—fleet after fleet of Seiddab made ready and crossed the stargate.

The Terran governments could not believe the first reports that came flooding in. But soon their fears were confirmed. Earth was facing its greatest threat yet with only months to prepare before the Seiddab fleets arrived.

The plan was simple: get anything and everything capable of carrying a laser into space and between the Seiddab fleets and Earth until a proper defensive fleet could be assembled. The rag-taggle armada was soon wiped out. Soon all that stood between the Seiddab and their goal were the newly built Hunter Killer craft. The speed and the manoeuvrability of these craft outwitted the colossal Seiddab space cruisers. They fought with a bitter vengeance until the last of the cruisers was out of action, but the space war was over.

In the second part of the trilogy, the land attack phase, Earth's major cities suffered an onslaught from the Seiddab. Where Earth had lacked a space fleet, it was not short of ground defences. The super power's stockpiled 'deterrents' were used to good effect: soon the Seiddab were forced to establish a base on the moon and wait for Earth's offensive.

The final phase came a year later with the Lunattack. Using the legendary Luna hover fighter craft, the Earth forces annihilated the Seiddab and Earth went on the offensive, expecting another invasion from the alien planetoid. After a fierce battle, the planetoid was neutralised and teams of scientists set about the task of discovering what the Seiddab were.

Twenty years had passed since the start of the Seiddab space wars. With the planetoid sealed off the Seiddab became memories, and the trilogy of games came to a close.

The scientists researching into the Seiddab discovered that they were the automated defences of a race called the Sei. A malevolent alien lifeform had taken control of the Seiddab and used them against their creators.

Fighting back, the Sei found a rare crystal which could be used to kill the aliens by causing a very high electromagnetic pulse. Gains were made but the Sei were still losing. Finally, the galactic quadrant was isolated in an attempt to contain the aliens but 24 stargates were never shut down.

No, not one of the alien lifeforms but the man himself, Steve Turner . . . . . but judging by the black eye pupils it could be a changeling.

The Sei created a graviton device, a bomb which was designed to rip apart the space continuum to undo the power of the stargates. This device was disassembled and the parts hidden, lest the alien life form learn how to use it and establish a gate into the remaining Sei quadrants. Eventually, the last of the Sei perished and the alien lifeform became dormant until man disturbed it.

While sifting through the Sei computer banks, scientists found evidence that the Seiddab were preparing to retake the SOL planetoid, and the story of *Astroclone* begins.

A team of crack pilots, soldiers and technicians were assembled and for months they trained for an unknown mission. Finally the space commander himself arrived to give them their final briefing. They were given a new name—Astroclones.

The Scientists had made an important breakthrough. They discovered cloning. By cloning they could create a super army—not only could they clone people but also ships. Several ships held safely in the energy field could be used to project clones through the stargate. Each ship had enough energy to produce 8 Astroclones who would venture into the Seiddab bases.

The specially selected team was assembled and taken to a room which resembled a hospital ward. There the cloning device was lowered over them and the advanced Sei computers combined the data of the clone warriors to create the master image of the Astroclones.

The Astroclones' brief was to defeat the Seiddab by penetrating their bases, and destroying the computer systems. To complete their mission they need to locate the graviton bomb, assemble it and activate the device at Stargate Control thus shutting down the stargates.

Described by Andrew Hewson as '*Dragontorc* but with more of the shoot em up business in it,' *Astroclone* is exactly that. There are three main stages to the game which are all totally different: there is a shoot em up sequence; a strategic map and an adventure game all of which are combined very cleverly.

You start off in a space ship controlling one of the clones. The clone is surprisingly easy to handle. To pick objects up you select the pick up mode and then you can move his arm up or down—a bit like the servant spell in *Avalon* and *Dragontorc*. An icon display on the screen show what effect the control keys will have on the clone. Just hold fire down and move the joystick up/down or left/right to get into different modes. For those of you who have played *Dragontorc* it will only take a little while to get used to this because it behaves the same way as the spell scroll. There is also a message panel which supplies information about a clone's condition such as how much oxygen it has, and may offer clues . . . . .

Should you have collected a valuable object do not despair if your clone is destroyed—objects carried by one clone are carried by all the others. Similarly, any object in one ship is in all the others. This may seem daft but you must remember that all the ships are cloned off one ship, and all the clone warriors are cloned off the same people, so in effect you are always controlling the same ship or clone.

The first problem encountered is how to use the teleport system and it is at this point that you can practice controlling the clone. The graphics in this section are an example of those seen in the adventure game. Once you have mastered the teleporter you will be faced with the strategic map. Here you warp to other sectors of the galactic chart, just like the galactic grids used in the old Star Trek type games. Once you have selected where to go, then warp there and you will enter the arcade sequence. If you have warped to an area containing Seiddab cruisers, you will have to destroy them before you can leave that sector or enter the Seiddab base if one is present.

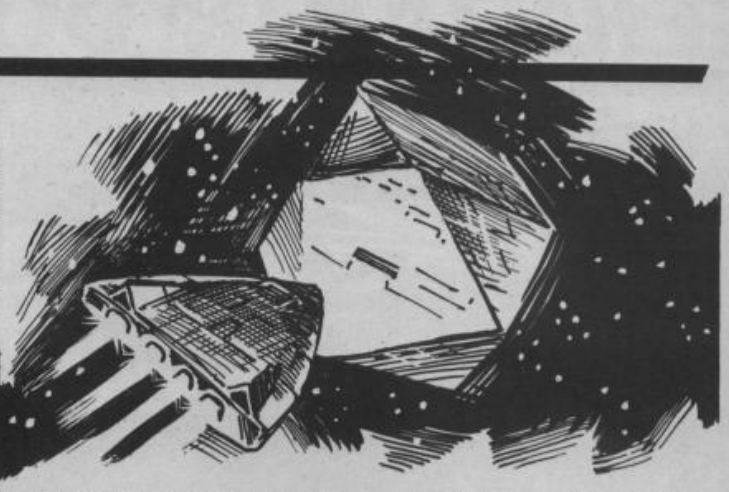
The arcade sequence is a sort of Defender/Scramble game; though a bit slow it is quite enjoyable to play. If you find a base then you will start the adventure solving part of the game. This part is a sort of space version of *Dragontorc* but with more complex problems to solve.

Astroclone certainly looks like another winner from Hewson. Steve Turner has managed to achieve a good blend between the three main types of game, arcade, strategy and adventure which should cater for most people. When we saw the game it still had a bit of work to be done to it but a full review should appear next month. *Astroclone* will be hitting the streets sometime in October priced £7.95

ROBIN CANDY

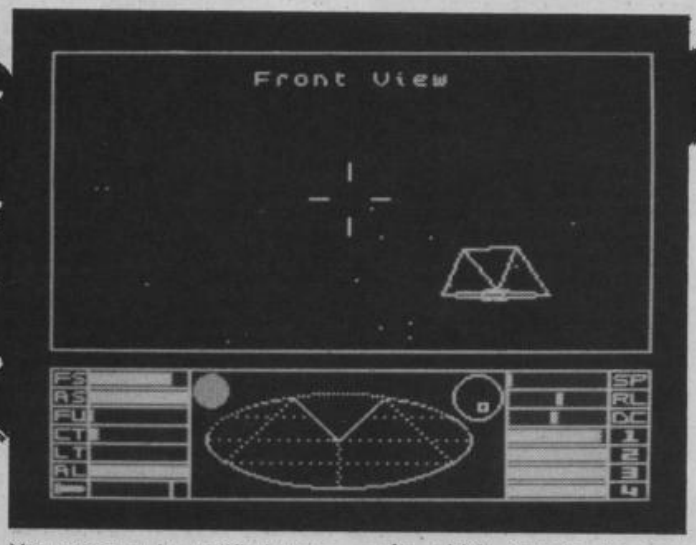
Robin Candy powers up his Cobra Mk3 and blasts off into deep space on his quest to become . . .

ELITE



THERE CAN BE FEW PEOPLE who have not heard of the BBC, and more recently the CBM 64, megagame *Elite*, and the majority who have must have wondered what all the fuss was about. Now you too can experience the joy of cruising the galaxy, wheeling and dealing, because *Elite* is just about to make its debut on the Spectrum, courtesy of **Firebird** and the programmers of *Gyron*.

But for those of you who don't know what the *Elite* fuss is all about, the following is a brief outline of the game.



You are a newly qualified space pilot who's previous experiences of combat have been in simulation capsules. Having got your pilot's licence, you now sit at the controls of a Cobra Mk3 space craft, fitted with only a front pulse laser, and with 100 credits to your name. The more ships that you destroy the more your combat 'rating' will go up. You start off as **Harmless** and it is your life's ambition to work your way up to the coveted **Elite** status.

Elite is essentially a highly sophisticated trader/shoot em up game. You buy your goods, hyperspace to another planet, avoid the pirates or destroy them and sell your cargo if the profit to be gained is worth it. When, and if, you make some money then you can equip your ship with extra goodies that should make life a bit easier. These include: **missiles**, which will destroy another ship on contact; **large cargo bays**, for carrying an extra 15 tons of goods; **Electronic Counter Measures (ECM)** system, for destroying enemy missiles; extra **pulse lasers**, for the side or rear views; **beam lasers** (these are quite a bit more powerful then pulse lasers, allowing you to dispatch an enemy more quickly; **fuel scoops** — fly towards the Sun with these on and you get hyperspace fuel for free, they can also be used to pick up the cargo of a destroyed ship; **escape capsule**, used for getting out of tight situations, their only drawback is that you lose your cargo; **energy bomb**, a device that destroys all other ships, asteroids etc in your immediate vicinity; extra **energy unit**, which speeds up your energy replenishment; **docking computers**, these make docking a lot easier but if you can't dock without them, then you shouldn't be out in space anyway; **galactic hyperdrive**, terribly expensive but they are the only way of travelling between galaxies; **mining laser**, which is used to mine ore from asteroids; and finally but far from least **military lasers** are the height of weaponry sophistication, they can destroy enemy ships with a couple of shots — consequently they are **very** expensive. Once you have equipped your ship adequately then the game starts to be real fun.

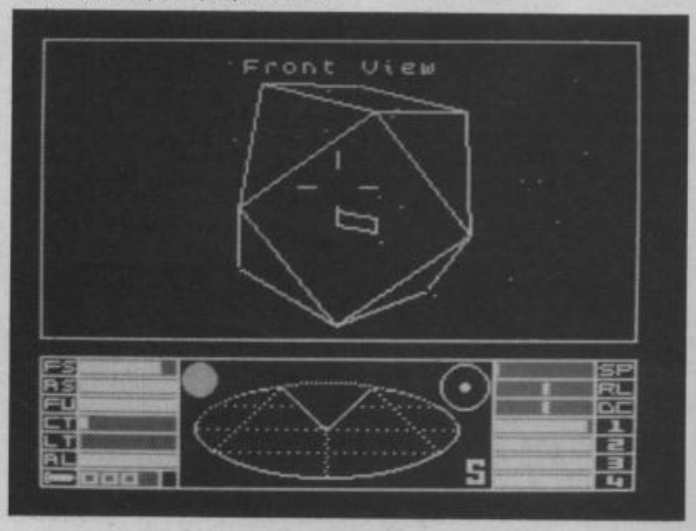
Now that you have your 'Iron Ass' (the term used to describe a heavily armoured ship) it is possible to visit the less pleasant worlds, ie the **Anarchy** and **Feudal** planets. It is on these worlds that you can really build up your rating. In the Spectrum version, to build up your rating, it works out more quickly if you find pirates and destroy them rather than just shooting the police ships as they leave a space station (this may seem easier, but the police don't like it)! Each ship has its own **kill rating**, for instance a Thargoid (man's deadliest enemy, who know no fear due to having had their fear glands removed) is worth 5 kills while a Police Viper ship is rated so low that it isn't worth killing.

Each planet in each galaxy has its own characteristics that have a strong influence on how the prices of goods connected with that planet behave. Poor industrial worlds need basic items such as food while rich argricultural worlds want hi-tech equipment like computers and machinery. As well as a **productive** state every planet has its own **political** and **tech** level states. The politics of worlds can range from **Corporate** states to **Anarchies**, and their technical level (how advanced a planet is) range from 1 to 15. Using this data it is quite easy to estimate a planet's needs, for instance a poor agricultural, anarchy, tech level 1 planet will pay highly for computers — but you must always be prepared for the worst.

At certain points in the game you are approached by the navy and given a **Special Mission**, there are two of these. In the BBC and CBM 64 this involved destroying a certain ship. If you were successful then you got a sum of money in return. The second special mission was awarded much later in the game and this entailed stealing some plans from one planet and transporting them to another planet. If you were successful at this then you were awarded with a naval energy unit — a sort of souped up energy unit. However, on the Spectrum version the Special Missions are going to change and there could well be more of them, memory permitting, plus some tasks that are not exactly Special Missions but that still have to be undertaken by the player. At the time of writing details on these have not been finalised.

Due to the memory restrictions of the Spectrum (the BBC version had to be continually loaded in from tape or disk) some of the features of the original might have to be left out. The BBC and CBM 64 had some 18 different types of ship but the Spectrum version may well be slimmed down a bit but I doubt whether this will actually detract from the game. One plus, though, is that all the bugs from the previous versions will have been ironed out. *Elite* on the 64 suffered form being painfully slow, especially when there were several ships on screen, and the Spectrum version isn't quite as fast as the BBC but, on the other hand, it doesn't slow down when there are a lot of objects on screen.

BBC owners have always been crazy about this game, and despite some mixed opinions from 64 players, I have found the game continually addictive. What I have now seen of the Spectrum version has made me eager to get my hands on a finished copy as soon as possible, but at the moment it looks as though I'll have to wait until late September/early October — or whenever Firebird have ironed out all the bugs. Price unknown as yet, but it should cvome out at around the same price as the other versions — around £15.



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MAC-ADAM BUMPER

Producer: PSS
Memory required: **48K**
Retail price: **£7.95**
Language: **French machine code**
Author: **R Herbulot**

Macadam Bumper comes back to back with the Amstrad version, which is an increasing trend nowadays, but the striking thing about this game is that it was written by a French software house. PSS are clearly waking up to this fact and not being a company to wait for the tunnel, they grabbed the UK rights. However, *Macadam Bumper* is more than just a pinball simulation . . . .

Immediately after loading the game you are presented with a menu screen containing six options. If you've got itchy flipper fingers, you can get straight to playing pinball on the built-in table. Alternatively you can modify a table layout, design a new one, save a design to tape or load a previously created table into the program. If the mood takes you, you can redefine the playing keys before you start playing.

In PLAY mode, the table itself occupies just under two thirds of the screen; the rest is taken up with with a rather saucy scoreboard the design of which rather inspires the alternative title of 'Madam Bumper' (well, it is French software, after all). To begin play you must insert some money, or rather press the appropriate key a few times. The next pre-game task is to input the number of players — any number up to four can join in a game.

Now you are set to begin. The ball is fired by holding down the left and right flipper keys together — the longer you hold them down the greater the force applied to the ball. Once the ball is out into the table it's pretty well at the mercy of the bouncers, springs, bumpers and of course you, and your flippers. There is a 'jolt table' facility in the game, which is rare on pinball simulations and allows very realistic play. The simulation is accurate: jolt the table too much and the 'TILT' light comes on and you lose the game.

All the bonus features are on the standard table, you know the sort of thing, knock down the whole series of targets and you get a bonus million points or get a ball zipping between two bumpers and you can sit back and watch your score increase by a factor of ten. But when you grow tired of the standard table you are only a key press away from designing one of your own.

From the main menu you can enter the DESIGN mode where you can either modify the table layout currently stored in the program or design a table from scratch. In the design mode, the screen displays the table you are working on with a panel of parts in place of the saucy picture. All told there are some seventeen different components including slopes, flippers, bumpers, targets, rollovers and guiding channels. A selection of point values can be allocated to components which affect the score during play.

Each component and score value is labelled with a letter next to an arrow. The arrow points to the spot on the component which is placed over the cursor used to select where parts are to be placed on the table. To place a component, all that you need to do is to move the cursor to the required position and press its identifying letter.

A draw option allows you to change the shape of any part of the table. Y, G, H and B drive a cursor which draws a line in your specified colour in its wake. Pressing caps shift and symbol shift provides a brush which can paint any object that you choose to move it over, except for the bed of the table which must be of one uniform colour.

Once you have settled on a layout you can move onto the page which allows you to alter the characteristics of the table. For example you can change slope and tilt sensitivity, elasticity and the speed of the bumpers. From this page you can also alter the sound output and the rules governing the allocation of bonus points, extra balls and games.

When you have finished designing your masterpiece you can save it to tape and start on the next one, and you can always load a previous design back in and try to improve it . . . when you come up with the perfect pinball layout you might be tempted to send a copy off to PSS to try and win the pinball table they are giving away as part of the inlay promotion.

CRITICISM

● **'Unlike some members of the CRASH review team I was not able to misspend my youth bent double over a pinball machine. That's one of the reasons why I had difficulty understanding the Elton John song from the film Tommy. I certainly made up for lost time playing** *Macadam Bumper*! **The game plays very well indeed but the ball does become a bit flickery when you alter some of the table specifications and speed things up a bit. Designing your own table is quite good fun, but practice is needed to avoid producing unplayable tables. This is a very good implementation of pinball, and the powerful design facility adds greatly to its lastability — especially if you are gifted with a warped imagination.'**

● *'It is very hard to represent Pinball accurately on a home computer. Previous versions have suffered from being slow and unrealistic, but PSS have to put together a reasonable representation of the game. The graphics, though not mind blowingly brilliant, are adequate and serve their purpose well. The option to define your own tables makes it a good package and allows plenty of scope for tough games. Not being a pinball addict I found that* Macadam Bumper *was instantly playable and quite addictive. Overall, it's a good game and certainly one of the better pinball spin offs.'*

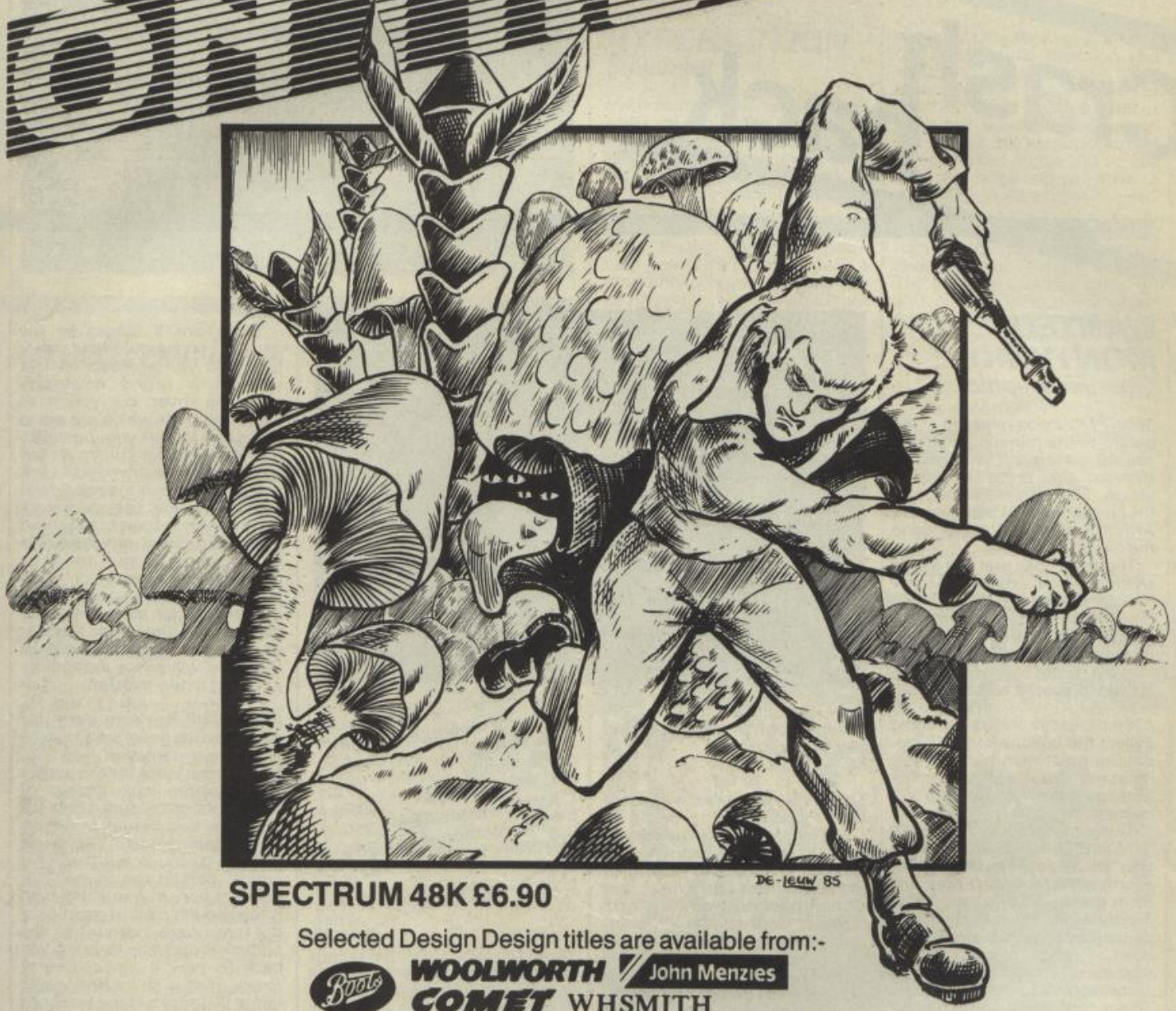
● 'Pinball wizards will love *Macadam Bumper*. Playing the basic table provided within the game should provide hours of fun itself, but once you get tired of pounding flippers, it's time to experiment. It's up to you how many skill levels the game has — design yourself harder pinball tables as and when you need them. All in all, a good package, well executed, which you will probably go back to again and again. The instructions, however, are rather poor'

COMMENTS

Control keys: playing keys are definable
Joystick: not applicable to the game
Keyboard play: very good
Use of colour: choose your own
Graphics: very good
Sound: average
Skill levels: depends on your design ability
Screens: one playing, two for design
General rating: overall this is an excellent package

Use of computer	85%
Graphics	87%
Playability	78%
Getting started	65%
Addictive qualities	78%
Value for money	78%
Overall	**87%**

ORTHALIAN



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Yep, it's back again, the feature that simply and fearlessly tears the lid off the past and re-examines the CRASH reviews of yesteryear in the light of modern post-industrial development and the onset of Graeme Kidd. Ageing arcade spendthrifts and sworn died-in-the-ink lifelong enemies, ROBIN CANDY and LLOYD MANGRAM sign a tissue-paper thin truce to bring you another. . . .

Crash back

GAMES REVIEWED

Monty Mole
Braxx Bluff
Strange Loop
Hyperaction
Kokotoni Wilf
Frank N Stein

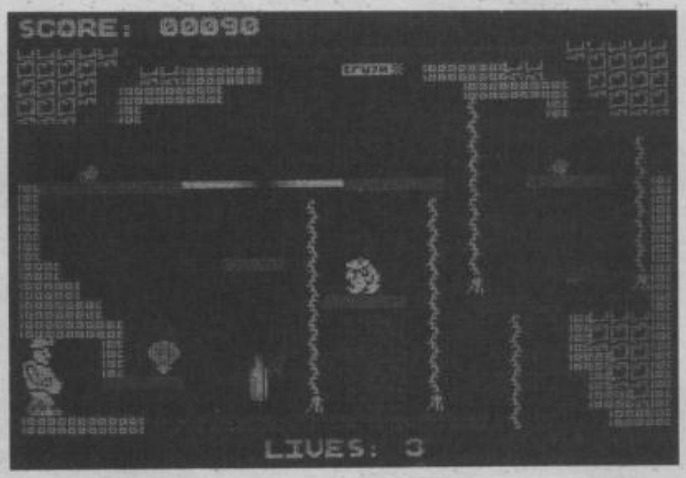
WANTED: MONTY MOLE
Gremlin Graphics

Monty Mole was released at the height of the miner's strike and caused quite a stir with games experts, the press and television. This was mainly due to the caricature of Union leader, Arthur Scargill that appeared in the game.

The story goes that it is a long chilling winter's day and Monty makes a daring bid to snatch coal from a South Yorkshire pit. Monty must find his way through the pit collecting bits of coal and other assorted items in his bid to escape with the goodies. He finally emerges in Arthur's castle where he must collect the ballot papers to topple the great man but first you must get past Arthur's personal body guard of flying pickets and nasties.

The game looks very similar to *Jet Set Willy* but in Jet Set Willy you could easily visit other rooms without collecting items from them. This is not so in *Monty Mole*. By collecting particular items you are able to proceed through some of the nasties or a wall opens up to allow access to another room. This means that it not a straightforward platform game and some thought is needed to play it. Some of the problems include how to get past the wall on the seventh sheet and how to get past the railway sheets. This all adds up to a highly enjoyable game.

I remember reviewing Monty Mole when it was first released and thinking that it was an excellent game. If it happened to come into the offices to be reviewed now I think I would like it just as much. The graphics are superb with few attribute problems considering that it is a very colourful game. *Monty Mole* is just as playable as the third game in the Monty trilogy, *Monty On The Run*, and is certainly addictive. If you still haven't got it then pop out and buy it now!
RC



This game, of course, was voted Best Platform Game of 84 by CRASH readers, and looking at it again now, I can see why. Although it only has 21 main screens, most of them are deadly tough and you have to go through one or two of them twice. On top of that, the physical layout and the way the screens link up, make it an exciting looking game that really hasn't dated at all.
LM

Use of computer	86%
Graphics	94%
Playability	95%
Getting started	88%
Addictive qualities	96%
Value for money	90%
Overall	92%

(Rob) I wouldn't alter the ratings at all; *Monty Mole* is still an excellent platform game.

(Lloyd)And neither would I!

BRAXX BLUFF
Micromega

Man has progressed far beyond the limits of the solar system and has begun to explore the unimaginably distant worlds in the search for resources and knowledge. In every new system an intergalactic rescue cruiser stands at the ready in case of an emergency. It is manned by volunteers of the Life Corps. You are such a volunteer and the emergency at Braxx Bluff will either make you a hero or a memory.

The lifeship Vega has stabilised its orbit around the planet Prolon in response to a distress from below. Three members of an exploratory team left their base in a rover and have fallen prey to the energy hungry creatures who inhabit the world. The creatures fed on the energy banks in the rover which now lies stranded without power, the occupants slowly dying as the life support systems fail. Your mission is simple — land, find the rover and return to base in time to save the lives of the crew.

There are 5 stages to the game. If you should land safely then you will proceed on foot towards a sound emanating from the rover, but you must avoid the birds which are out to get you. When you complete this stage you find the rover and it is your task to drive this as fast as you can down the road. Next comes the the sea skimming. Here the rover stays at full speed to avoid sinking, but the sea is full of rocks which must be avoided at all costs. A direction finder guides your way — the higher the pitch the more directly you are heading towards base. If you complete that stage then you will arrive at the base and start a new mission.

Braxx Bluff has very simplistic graphics that generate a reasonable representation of 3D. Micromega went for the simple but effective look instead of using lots of colourful detailed graphics that would make the screen look a mess. The sound isn't up to much but it plays a critical part in the game. This game is very playable although it takes quite a bit of practice to get anywhere but it has the addictive qualities to bring you back to play it again. Overall *Braxx Bluff* is still a reasonable game by today's standards but it can't really contend with the likes of *Frankie* and *Dun Darach*.
RC

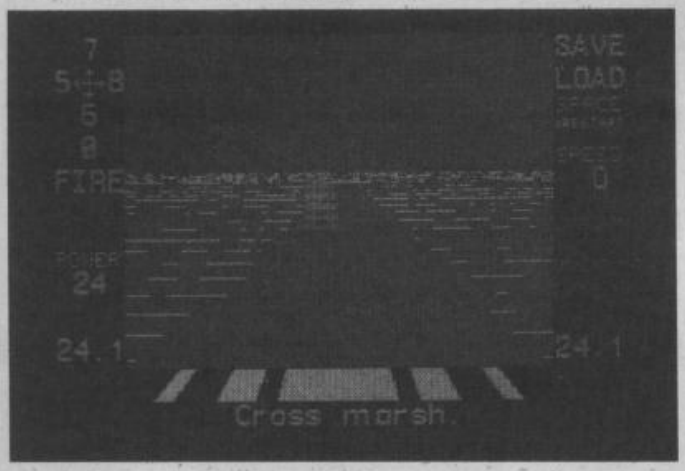
Use of computer	82%
Graphics	87%
Playability	91%
Getting started	93%
Addictive qualities	87%
Value for money	84%
Overall	87%

I always thought Braxx Bluff *was strange looking game, but its 3D effects worked quite well. On the other hand, this is probably the least thrilling of Micromega's 3D efforts and in retrospect it has*

aged a bit graphically, but still offers quite a challenge in its various stages.
LM

(Rob) I would probably lower all the ratings except Playability by about 10-15%

(Lloyd) Given that I thought its 'strangeness' made up a lot of its value at the time, I would have to agree with Robin, strange as that may seem!



KOKOTONI WILF
Elite

It was about this time last year that we were first subjected to the merciless hype approach of Elite with their first release, *Kokotoni Wilf , boasting that is would knock JSW* of its perch.

Legend has it that several hundred years ago in a province of Northern Europe there lived a magician by the name of Ulrich, who discovered that the famous Dragon Amulet had been fragmented and the pieces scattered through time. Being too old and infirm, Ulrich could not go on a mission to recover the pieces himself. So he summoned his young protege, Kokotoni Wilf, to his presence and bade him to go and fetch all the parts of the amulet. The only help Ulrich could give was to create a time gate that would take Kokotoni Wilf to another time zone and more fragments but only when all the fragments in his present time zone were collected.

Your task is to guide Wilf around the maze of rooms and collect all the fragments of the Dragon Amulet for Ulrich.

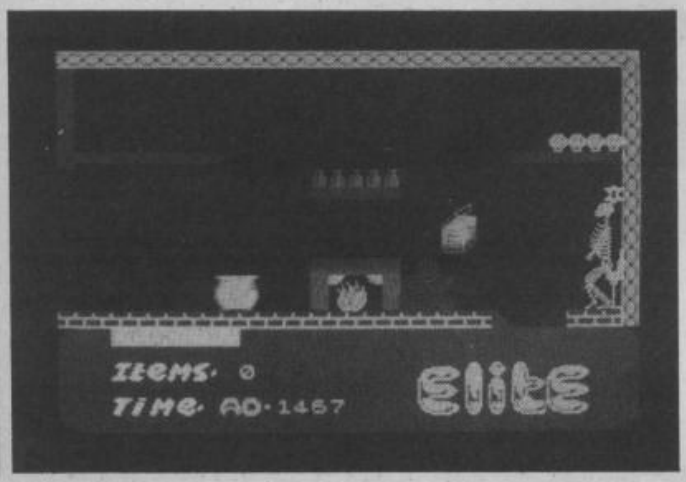
Kokotoni Wilf is essentially a platform game with a couple of differences — instead of jumping from platform to platform you can fly. This may seem very easy but it does take a while before you can actually 'pilot' Wilf competently. The graphics are quite good but they weren't really that much better than those found in *JSW* just a bit more varied. Sound was a bit limited but that didn't detract from the overall feel of the game. *Kokotoni Wilf* was and still is very playable but it isn't that addictive, once you have visited all the time zones you rapidly lose interest. As platform games go it is a very good one which is still worth getting if you're a lover of this type of game.
RC

Use of computer	82%
Graphics	88%
Playability	83%
Getting started	83%
Addictive qualities	83%
Value for money	85%
Overall	84%

I must admit that while I liked the look of Kokotoni Wilf, *I never found the game itself that thrilling to play. Although the different graphics of each Time Zone added something to its overall flavour, that alone wasn't enough for me to get very excited. It did pretty well in CRASH at the time (my not having a hand in the review of it!), but I don't think it would get much above the mid-seventies now.*
LM

(Rob) I wouldn't fiddle with the ratings too much just take down the addictive qualities and the overall percentage down by about 5%

(Lloyd) Whereas I would want to knock both those down by at least 15%



HYPERACTION
Silversoft

Hyperaction followed hot on the heels of Silversoft's previous release *Worse Things Happen At Sea*, but instead of a totally original game they turned back to using a more traditional arcade type of game

Hyperaction is best described as a 'Pengo' meets 'Pacman' type game. You move around a randomly generated screen collecting objects (usually four) but you have some nasties chasing along after you. What makes *Hyperaction* is that you can't actually kill the baddies only trap them by pushing the blocks that form the maze in their path. Each screen is a game in its own right and subsequently has its own problems — sometimes collecting the objects will be enough to finish that screen or it might require you to eat all the blue out of the Artic Jelly fish.

Pushing the blocks is easy enough, just press fire and push the block in the direction you wish it to go; should the block meet the edge of the screen or another block then a further push will burn the block away. The blocks are an important of the game but on the last screen there are none and you have to survive on skill and speed alone.

Hyperaction is certainly the name of the game for this horrendously fast 'Pengo' variant. The graphics are very colourful and move smoothly, which makes this game a treat to watch. Sound is used well and the whole game has a very pol-

Use of computer	77%
Graphics	82%
Playability	89%
Getting started	80%
Addictive qualities	91%
Value for money	85%
Overall	84%

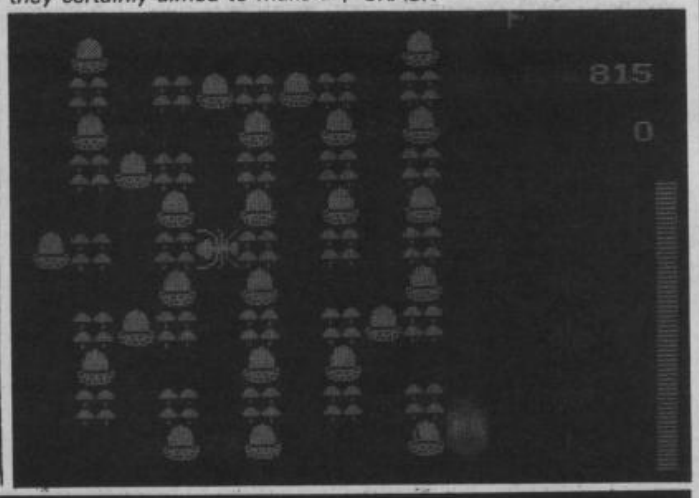
Crash back

ished look to it. *Hyperaction* is highly playable and quite addictive though it is probably a bit too hard. Overall it is still a good game by today's stanndards and will doubtlessly appeal more to the younger players.
RC

Silversoft took a bit of risk with this one, using older ideas and simple looking graphics, but they certainly aimed to make a tough, fast and highly addictive game and they succeeded. Because of those rather 'timeless' qualities, it has hardly aged at all and still represents excellent fun for anyone with fingers sufficiently nimble and eyes adequately bright.
LM

(Rob) I would keep the playability the same and lower all the other ratings by 10%.

(Lloyd) On the whole I think I would leave well alone, except on the graphics, which in all fairness are not worth the rating they got, but that was probably due to the system then in use in CRASH



FRANK N. STEIN
PSS

As Frank it is your task to put together parts of a monster. These parts happen to be scattered around your mansion but this is no ordinary luxury pad, for instance you can only go down the stairs and firepoles, and how many houses have ice in them or coiled springs to get you up a floor?

There are seven bits of the monster to collect namely the head, shoulders, arms and legs which all have to be assembled in the right order, from the head downwards. When you have completed your monster you have to activate him if you have built him well with in the time limit, then the monster won't have to much of an electric shock but if you only just make in time then he will be very, very angry. In the first set of rooms there are some light bulbs that, if picked up, will make the clock turn back slightly. The next screen is a sort of 'Kong' variant. The monster stands at the top of the screen throwing things down at you, how many objects he throws depends on how quickly you completed the previous screen. You must now guide little Frank to the top of the screen safely, and on completion you move back to the 'mansion', screen to start building another monster. This time the layout of the mansion has changed and there is less time allowed. The game goes on like this, alternating between the construction screen and the Kong game while getting progressively harder.

Use of computer	79%
Graphics	80%
Playability	82%
Getting started	78%
Addictive qualities	83%
Value for money	78%
Overall	80%

Platform games have never been my favourites so it takes a really good one with some original features in it to capture my attention. A year ago *Frank N. Stein* did this but has now lost some of its appeal. The graphics are really only above average and the same goes for the sound which is limited to spot effects. *Frank N. Stein* is instantly playable but I very much doubt people will play over long periods of time, and it is probably more suited to ardent fans of platform games. Overall it's lost some appeal over the last year but I'm sure quite a few people would gain some of enjoyment from it.
RC

At the time this came out, platform games were all the rage on the 'let's out-willy JSW' level. Frank N. Stein *did offer some nice new twists to the straightforward platformer, but these were really just refinements. It was quite playable and amusing, but nothing really major.*
LM

(Rob) I would definitely lower the graphics rating by about 15% and the addictive qualities by about 7%. If *Frank N. Stein* was a new game then I would give it somewhere around the 71% mark.

(Lloyd) Yes, I think that's a fair estimate.

STRANGELOOP
Virgin Games

In *Strangeloop* it is your task to regain control of a robot controlled space factory that has been invaded by aliens who have reprogrammed the robots to destroy Earth

No man has stepped into the factory for over 100 years and no maps exist. All you now is that the place lacks oxygen, has no gravity and is infested with razor-sharp industrial waste (swarf). The object is to reach the room with the central computer in it but this isn't a case of exploring the maze until you find the room because you must overcome many puzzles before you can complete *Strangeloop*.

To help you on your mission you have an oxygen suit and a laser gun. If you get hit by flying swarf then a hole is ripped in the suit and your oxygen leaks out faster than it should, so a continual search for suit patches is another part of the game. The laser has a maximum of 99 charges and fires either horizontally or diagonally so as well as looking for suit patches you must also look for gun charges. Somewhere in the complex of rooms is a jet cycle which can be used to speed up your movement throughout the rooms but this cycle is rather old and drinks up a lot of power so look out for extra power packs. As *Strangeloop* is such a large game the LOAD and SAVE facilities are required quite a bit.

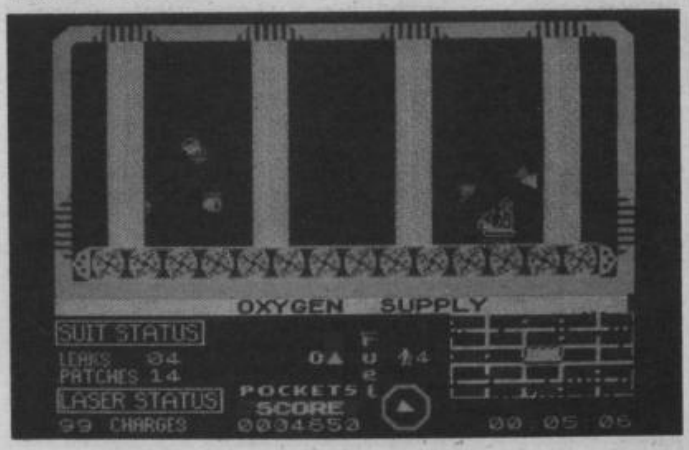
Strangeloop was and still is one of the most difficult arcade adventures around and it shouldn't be missed by fans of this type of game. The graphics are still good by today's standards and the sound is reasonable. It is still very playable and the various puzzles should keep you addicted for a long time, the only problem being that the game might prove a bit too difficult. It is definitely still worth getting a year after its first release.
RC

Use of computer	86%
Graphics	87%
Playability	82%
Getting started	89%
Addictive qualities	85%
Value for money	86%
Overall	86%

In my opinion, Strangeloop *is the best game Virgin ever produced, and actually one of the best arcade adventures of its kind. The problems it set and the methods required for solving them are as appealing today as they were a year ago. Certainly a game that has aged very little indeed.*

(Rob)I would probably lower all the ratings by a couple of percent but no more because it is still a very good arcade adventure.

(Lloyd)This one has stood the test of time and I think our original ratings were pretty well spot on.



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There's no doubt that this month the biggest single item of comment in my mail bag is the CRASH August issue and the contents of the four page spoof which led to the issue's being temporarily withdrawn from the shops to have the offending pages removed. Lots of writers complained that they were unable to see the four pages, but the biggest bunch were those who managed to buy a copy intact before the injunction served by EMAP on behalf of Sinclair User magazine caused the copies to be removed from newsagents.

I have been asked by everyone on the CRASH team to offer thanks to the hundreds of writers who have supported us through their letters. I hope you will understand that I am completely unable to print any of these mentions because the entire matter is sub judice, pending a court hearing, and because much of the letters' content would only end us up with another injunction!

It's been quite hard to pick out a letter of the month (as usual), but I think the one below made me think most hard (and that's not a Good Thing). Its writer should be most pleased, because he's the first recipient of the new LETTER OF THE MONTH PRIZE, which has gone up from £12 worth of software to a staggering £20!

Read on . . .

BETTER ANY DAY

Dear Lloyd,
I'm writing this letter because of your reply to a letter from Scott Ashley which appeared in issue 19. You said, compared to books and records, the price of games is pretty good; in fact you went on to say that you think that games are better value for money. Certainly in my view this is untrue.

I bought *The Lord of the Rings* when I was 10 for £4.25 and over the next three years I became so attached to it that I read it nine times. (I've progressed to the *Covenant Chronicles* now. Listen, you probably think rain is wet — so who are you to judge)?

Last summer I bought *Jet Set Willy* (a trendy thing to do at the time, I'm sure James Lea will agree), and was addicted to it for about three months, after which I put it in a box and have left it there.

This means that I paid £1.70 more for the game which has kept me occupied for a twelfth as long as the book.

At this point you're probably saying, 'That might be true, but you read the book nine times, and I have only ever read a book once.'

Surely that's like buying a record and only listening to it once. You're bound to misunderstand something and will probably miss some of the subtleties. I mean, look how many times you have to read one of Shakespeare's plays before you even begin to understand it. The brighter part of the population who do English Lit 'O' level are given a whole (school) year just to read it, and by the end of that, quite a few people still like the play; quite a few are sick of it; but what I have been trying to say is, if you gave me five quid now, I'd go and buy *The One Tree* and *White Gold Wielder* because I think they'd keep me occupied longer than any game I could buy for that money.

James Grainger-Smith, Strood, Kent

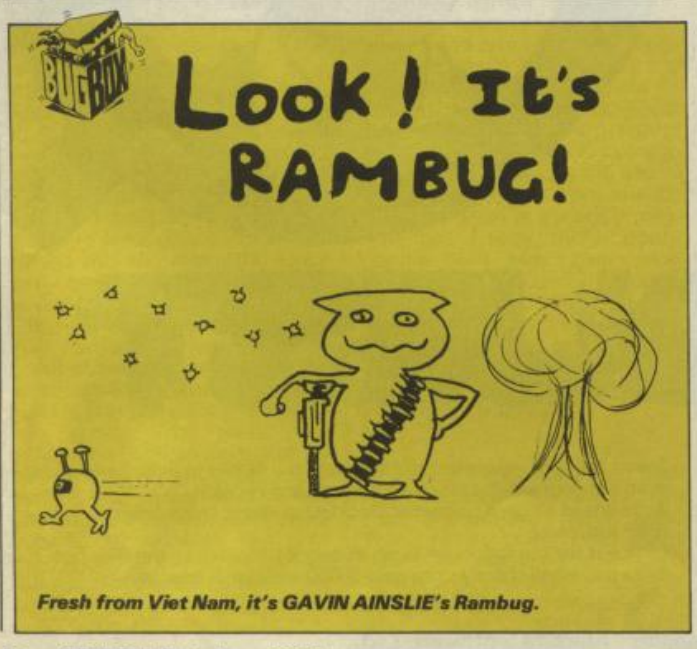
PS If you give me £12, I'd like *Nodes of Yesod* and *Finders Keepers*.

You kill me James — this is like the Marshall McLuhan philosophy that stated books are dead — in a book! No, okay, I know you're joking about the £12 — you'd much rather go out and buy a book with it. Well, now you've got £20, so you'd better let Aunty Carol Mail Order know what else to add to your software list!

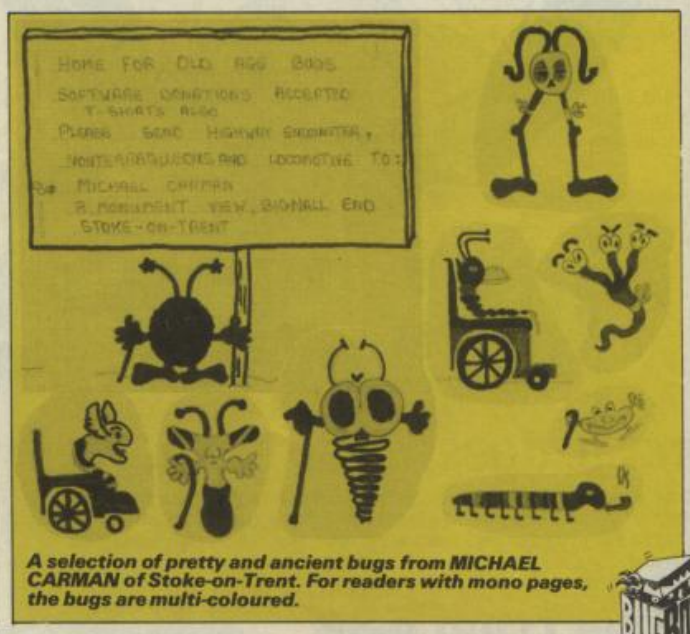
But being serious (Robin Candy just stamped on my little toe), I have to tell you that I don't read books only once, at least not those I really enjoy, and I have been right through the Covenant Chronicles avidly — twice, the Multicoloured Land trilogy, the entire works of Aldous Huxley, The complete Winnie The Pooh and countless other books. But do I need to show off? No — I'm the sort of bookworm who would read on the London Underground escalators to get just one more page in before handing over the ticket (Robin has just remarked that 'worm' is the right word — but what does he know about zoology)? (I recognise a horrible slimy worm when I see one! -RC)

I think it's very misleading to try and cross compare things as different as music, reading and computer gamesplaying. Each have their own merits and disadvantages when compared to the others, and you have to take account of individual taste. I knew someone who read only one thing — the TV Times. He could even tell you the names of all the vision mixers on every programme, although he hadn't a clue what a vision mixer was. He did not read the Radio Times, or indeed anything else at all, because he hated reading. Of course there are always exceptions — your reading examples are well quoted as being much better value than almost any game I can think of, but the reverse is also true, I believe, Dun Darach *being better value than any James Bond book for example. Also, when did you buy your copy of* Lord of the Rings — *it's probably a bit more now. Still, it's an interesting discussion, and I'd love to know what other readers think about the subject.*

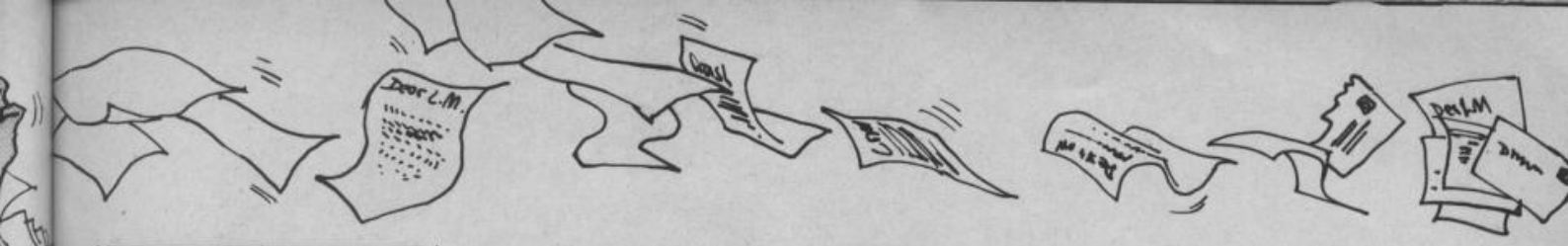
LM



Fresh from Viet Nam, it's GAVIN AINSLIE's Rambug.



A selection of pretty and ancient bugs from MICHAEL CARMAN of Stoke-on-Trent. For readers with mono pages, the bugs are multi-coloured.



SUBS UPSET

Dear Editor,
I am very concerned over your subscription offer in the July and August issues of your magazine.

I am a subscriber to CRASH via my local newsagent (no postage and no problems getting a copy) and have also purchased back numbers direct from you.

Your magazine represents excellent value, and I have sung its praises to several colleagues, but now feel very hard done by in respect of the special offers which are not extended to other genuine subscribers like myself.

I welcome your comment on the subject, but feel as a matter of principle that, if the offer cannot be extended, I will have no alternative other than to cancel my standing order with my newsagent.

D R Nethercott, Bristol

Sorry you feel that way, but in fact each of the subscription offers IS extended to existing subscribers in as much as a subscriber can buy the games being offered free to new subscribers at a heavily reduced price. Naturally we can't give the games away for absolutely nothing. They are free to someone who is not yet a subscriber but who takes up the offer because effectively they are a 'discount' to entice new subscribers. There's nothing uncommon about this at all. But if you are already a subscriber you can buy the same games at a heavily reduced price — a benefit of being a subscriber. They have to be charged out because we have to buy them in a certain cost in the first place, and while we bear that cost as a discount off the full subscription price, we couldn't afford to give everyone free games!

LM

STOP THE BLEATING

Dear Sir,
The constant bleating about the 'ailing' software houses is sheer nonsense. Obviously, some people do get copies of games, but the same happens, probably on a much larger scale, to music tapes and records. I don't recall EMI or other music publishers going out of business due to the high number of people recording music from the radio, using the combined radio-cassettes specially designed to do this. ALL my music records have been transferred to tape for convenience, and I still have the original records just in case. Likewise, games are usually tranferred to Microdrive because they are easier/faster to load AND a back up tape is also made for safety. The originals are still retained.

The number of games programs produced for the Spectrum is enormous and people simply cannot afford to buy them all. But, they know that they can get copies from friends, and many do. However, these friends will not swop for nothing, and expect to get a game in return. This simply means that many Spectrum owners instead of buying a game a month (or less often) are buying a game a week so that they have something to swop. This means MORE sales of software, as it is not possible to simply swop olds games — users are always after the latest available.

I do not believe that copying of tapes to give to a friend is anything like the problem that some software suppliers claim. I sincerely believe that there is a need for copier programs. Although various suppliers suggest that a shop will exchange a tape, even if it is a grubby original which has failed to load after a few months, this is nonsense. Also, shops will not help when the inevitable happens and your tape machine 'eats' your favourite expensive tape. They won't even change a tape the next day when you explain that it won't load . . . . as happens so often with the pulsing Hyperloads.

Also, *Jet Set Willy* was a huge success partly because it was original, but also because it was easy to break into after the daft colour code system was overcome. Then a large number of modifications (improvements?) appeared for the game. The awkward or impossible to load games such as *Decathalon* came and went, as it was impossible to do anything to them. This situation is the exact opposite of that claimed by GOSH as they prefer that all programs should be totally uncopyable and unstoppable (and unloadable?) so no modifications or changes can be made. A sure fire recipe for disaster.

Hardware devices such as Interface 3 for transferring games to Microdrive, or the Interface 007 which does the same and also makes a tape copy as back-up, will not reduce software sales. It will mean increased sales of Microdrives, plus some programs will be sold which had previously been shunned because they couldn't be transferred to Microdrive.

Some magazines have taken strange attitudes with regards to advertisements for copier/transfer software and hardware, owing to the new law on tape copying. This law will change nothing. It will merely say that the copyright law which applies to music will now also apply to computer software. This simply means that copying of tapes for your own use, ie making a back-up copy and/or transfering to disc or Microdrive will still be perfectly legal. The attitude of some magazines is blatantly two-faced. They won't accept ads for copiers, yet every issue they print articles on how to stop programs to insert POKEs. Once a tape has been stopped, it can be copied onto another tape, etc.

My company supplies the top selling copier and transfer tapes (if you don't believe it, my taxman and accountant can prove it), so my view is likely to be different to that of some software houses — but I also sell utilities. I also run the Microdrive Users Newsletter Club, which isn't exactly very profitable although the membership is currently in excess of two thousand. Members are very interested in 'cracking' methods used in games — not for piracy, but purely out of interest in how the Spectrum works, etc.

In conclusion, it might be interesting to note that the only tape copier ever pirated was an early 007 SPY which I sold (and yes, legal action is currently being taken against the software company concerned).

G A Bobker, ZX Guaranteed

CRASH has been under fairly severe pressure recently from a number of software houses (most notably the newer ones) to stop taking advertisements from tape to microdrive utility suppliers — yourself included, Mr Bobker. The argument has been put by a software house to one of the staff here, that we are hypocrites for taking a stand against home copying whilst allowing people like yourselves to advertise. You are likewise saying that we are hypocrites if we do not allow you to advertise at the same time as providing pokes etc. Life seems to be getting complicated, which was probably to be expected, since I disagree with you that home copying has NOT had an effect on software house receipts — I'm sure it must have done, but perhaps failed software companies have used it as more of an excuse than it really is — no one wants to admit that they went down because they didn't produce the goods.

CRASH has contacted FAST and asked what legal implications there are in allowing advertisements for tape to tape and tape to microdrive utilities. The upshot would appear to be that we could allow the advertisements to appear, and as regards tape to microdrive utilities, Mr Bob Hays told us that FAST has not yet formulated any policies.

Obviously I formulate no policies on behalf of CRASH, but we have generally operated on the basis that tape to tape copiers are out, and tape to microdrive are fine because they are necessary. Those, however, that make high quality, unprotected tape back up copies in the process, are obviously in a

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Phil Rogers 'Peek & Poke', "Popular Computing Weekly" Jan. 1985 (Vol.IV, No.1)

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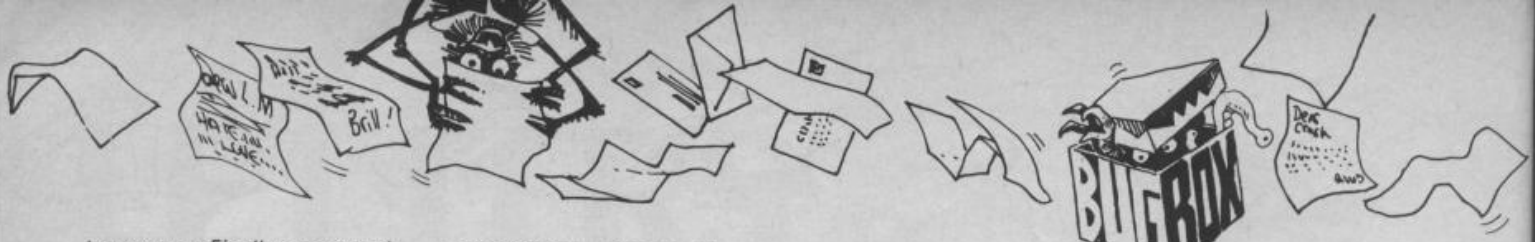

grey area. Finally, a personal opinion — too much is being made of expecting people to send their purchased tapes off to software houses for conversion. It doesn't seem to me that this is either ideal or practical or even being offered really. Until games are sold on microdrive as well, or the program allows conversion easily, it is unreasonable to expect people to throw their Microdrive units in the bin.
LM

BORING LETTERS

Dear Lloyd,
I have been getting CRASH for some time, and now I feel I must comment on the quality of the readers' letters you print. Particularly the letter from Ann Smith in the July issue, entitled 'My Buying System'. This contained useless pieces of information such as 'Buy a game when you have the money' and 'see which games are available at your local shop'. This letter was probably only printed because it suggested buying CRASH for the reviews and referred to other 'lesser magazines'.

To be able to read the letter, a person would have to have a copy of CRASH. Surely they are capable of judging the quality for themselves?

Many of the letters printed consist of only drivel, constantly praising CRASH. I think CRASH is a very good magazine, but these pathetic letters are of no use at all to any readers and are in no way funny.

Why spoil a good magazine with such rubbish?
Simon King, Carshalton, Surrey

Yes, I agree with you, Simon. The general quality of letters being sent in has been dropping recently, but I do try and avoid too much CRASH grovellingness. I thought last month's issue had quite an interesting bunch of letters however.
LM

HAND ME THE NOOSE . . .

Dear Lloyd,
Working in a computer shop in my home town of Rugby for almost two years, and having owned three Spectrums, the first way back in 82, I feel I am capable enough to pass comment on the ever-deteriorating world of the home computer.

The actual buying of computers themselves has, I feel, now virtually stopped. Personally, I haven't sold a computer in my shop for over a month or so, as opposed to a year ago when ten or so would go a week, depending on the time of year. Everyone seems to have a computer now — it used to be Johnny down the road who had one, but now Johnny, Jimmy and Timmy have got one too. Everyone who wants a home computer now owns one . . . on the whole, either a Spectrum or a Commodore 64.

Nowadays, on a good day, I might sell a printer or a joystick interface and joystick or two, and make a bit of money, but none of the hardware that actually drives these peripherals. All that now goes is SOFTWARE . . . .

Talking of which, this part of the industry is turning so very rapidly and oh so predictably into a perfect mirror image of the record industry. We stock a vast range of software, obviously predominantly games, for computers ranging from C16s to Sharp MZ700s and including all the favourites. Yet it is only the new software that sells.

Example: an amazing new game comes out called *Cauldron* . . . HiRes graphics, smooth movement, etc, etc, and you just can't stock enough of it.

Example: a great new singer called Springsteen releases a new album called *Born in the USA* . . . a lot of hype, a tour, etc, etc and you just can't get enough copies of the record in.

Cauldron shoots to the top of the software chart along with Bruce's album chart topping product, and it's the rave. Then suddenly a week, maybe a fortnight or a month and the record stops selling and plummets down the chart.

Result: a lot of shops are left with a lot of copies of Bruce's album that won't budge too well. Change the *Born in the USA* for *Cauldron* and you get the same picture. Effectively, a shop must gamble on a game as it would on a new pop group, order a hell of a lot and hope it reaches Number One. Perhaps an analogy with the singles chart would have been a better one.

What magazines such as CRASH and ZZAP! are ultimately doing is occupying the same space as something like SMASH HITS does in the music world, reviewing the new releases. Interview exclusives with Denton Designs or Tony Crowther become not totally dissimilar to the same with Duran Duran or Paul Young: 'What's your new game going to be like Tony? . . . How's your next single going to be different from the last Paul?'

You find record shops flogging 12" singles at reduced prices, and distributors offering special offers on clogged up stock in the same way as computer shops offer games at half price and some games are offered at ridiculously low prices by wholesalers.

The whole marketplace for computers is collapsing — in the same way as record shops lose money on half-price records, the computer shops and distributors can't be doing too well either . . . after all it was the hardware not the software that made all these shops spring up in the first place.

Unless something drastic happens, prepare thyself for the end of the actual 'Computer Shop' and for more of the mail order business. The end is nigh . . . and is my job in jeopardy?
Tim Keen, Rugby, Warks

The comparison between the software and music industries was made a long time ago — some of the parallels are obvious, others are not. The buying of home computers went crazy in Britain, and it must have been obvious to anyone in retail that a saturation point would be reached for the hardware. But to say that computer sales are dying is misleading. Sales are not as high as they were, but they are still happening because computers wear out or get superceeded. The situation in records has been the way it is now for decades, so what's new? If saturation point is reached on computer sales, then of course what's mostly left is software sales — surely that's good? What's happening here, and isn't perhaps so good from your point of view, is that computer and software sales are moving from the specialist shop to the high street chain stores more and more — just as happened with music in the 60s. I'm not saying this is generally good, but it is inevitable. There isn't any end in sight, as far as I can see, just more and more change.
LM

This month's Bug Box prize goes to EAN CLAGUE (14) from Kirk Michael, Isle of Man, for this cartoon strip featuring my favourite hero — it's not a bad likeness either (me you fools, not Jetman)!

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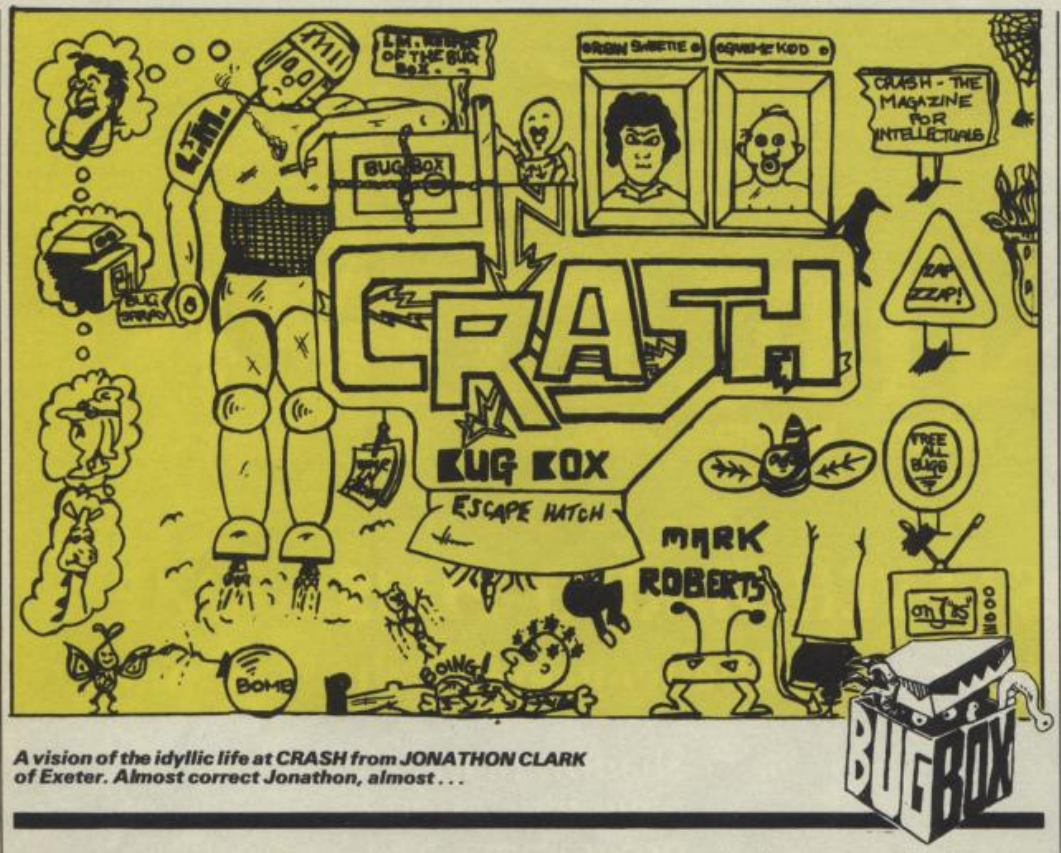

A vision of the idyllic life at CRASH from JONATHON CLARK of Exeter. Almost correct Jonathon, almost . . .

INFERNAL COMBUSTION

Dear Lloyd,
After reading about the Sinclair C5 in issue 19, I was prompted to write this letter. I too wondered why the C5 wasn't a rip-roaring success. It seems that the main criticism is that it is not roadworthy and I was very impressed with the arguments that the CRASH team put up against this criticism.

A lot of people seem to think that the electric vehicle will never be a serious contender against the internal combustion engine, and therefore is not a worthwhile project. This is where those people are wrong. We do not have an unlimited supply of natural resources, and as they diminish, prices will rise and the sale of cars fall.

Comparing the internal combustion engine against the electric engine, the electric engine wins easily on 'economic use of energy'.

Doing a bit of research into the modern internal combustion engine, I found out that it uses the same basic components that were used in the 19th Century. Over 60% of the fuel it burns is converted into wasted heat. Add to that pollution, and what have you got? A machine that is eating into our valuable resources and leaving a nasty mess!

Maybe he C5 isn't what everybody hoped it would be, but it is the first step towards a vehicle of the future. I hope Sir Clive is not discouraged by all this criticism, but I am sure he has the full support of all us CRASH readers!

Well, I guess that little lot took a load off my chest (and my brain!). Anyway, TFAGM — you can work that one out for yourself!
Alistair Walker, Co Down, N Ireland

The spark plug was actually developed as a method of testing whether swamp fever was present around stagnant water, swamp fever (malaria) being thought to be a gas! That's enough education for one issue. I should have thought that the biggest problem was not the criticism but the loss of all that money. I didn't get to have a go in a C5, so I can't say much about it, but it would certainly be a shame if electric vehicles were killed off through ridicule. More next month from CRASH CAR!
LM

I — A PIRATE

Dear Slash,
I am 14 years old and have over 300 pirated tapes. To start with, two years ago, anything could be copied with a nice simple program called 'The Key', but then nasty people like Crystal (Design Design) started using wierd loaders that the Key couldn't handle.

Then a mate came up to me and told be about another brilliant tape copier. I got one and it worked fine for a while, but then sometime last year horrible things called faster loaders came out. I had to go back to the most primitive method of all — tape to tape copying.

This is most unreliable, and copying copies rather than originals is almost impossible. Then Lerm 6 came out. Sure it could tape some fast loaders, but not all of them. So I still had to rely on tape to tape for some games. But now, to my relief, I have Lerm TC7 and it will copy anything.

I quote from my manual (photocopied) 'It is important to make back up copies of your software'. That's only an excuse to sell the tools to steal software. Why doesn't it copy itself, I wonder? Or any other Lerm software for that matter? After all, what happens when one of their tapes goes wrong?

Codes are a somewhat better deterrent for copying software. I copied out all the *Backpackers Guide* codes, only to find that the game was hardly worth playing. Fast loaders are no advantage to the software industry, because while they mean that some people can't load their originals, people like me can copy them fairly easily.

However much protection you put on an original game, you'll never wipe out tape-to-tape copying, and you cannot calculate how much money you would gain even if you could stop piracy. Most pirates wouldn't buy the originals in the first place.
Yours menacingly, 'Francis Drake', England
PS Your magazine is great. Have to buy it, photocopying would hardly be economical.
PPS JSW 2 is one of the few games I bought — the thought of copying out 892 codes doesn't appeal to me!

You seem to be saying that it's impossible to stop tape to tape copying, but this isn't strictly true. There are systems around now that to all intents and purposes make tape to tape copying impossible to any except people with hardware electronics knowledge. Micro Plus, for example, or the new Lenslok. Piracy will always exist, but the future for home copiers looks bleaker and bleaker.
LM

PROCLAMATION

Dear Lloyd (or whoever it is),
So Lloyd, you think you can outwit me? Well, you failed. You might have tricked the less intelligent (ie people who liked *Airwolf*) but not me. Anyway, here is the result of my many hours of thought:
LLOYD MANGRAM DOESN'T EXIST!!
Well, he can't can he? I mean we've never seen a photo of him — instead we're given an excuse that he is camera shy. And when I visited the offices, he wasn't in . . .

So prove yourself Lloyd. If this letter isn't printed, I'll send some bloodthirsty nuns to pull off your non-existent legs.
Yours proveyourselfely,
Sam Morgan, Cardiff, Wales.

I don't remember you ever coming to the office, Sam, but that's probably because I wasn't in. I know everyone thinks I've taken CRASH over, but it isn't really true — just look at the amount of words I write as against what other people write. I spend most of my time in my quite small cottage in the hills some five miles from Ludlow, just popping in occasionally to clear the Candyman off my desk, collect mail, look at some games and do a bit of typing. In many respects it's an idyllic life . . .
The ever present LM

WHY?

Dear Lloyd,
Would you explain why, when a game is recorded on both sides of a tape, presumably to save rewinding time, only one side ever loads?
Geoff Sturgess, Eastleigh, Hants

Traditionally, the tape was recorded both sides IN CASE one side failed to load. I haven't heard that software houses, to give credence to the tradition, have begun making one side definitely not load! Invariably, with copies we get to see, both sides load quite happily.
LM

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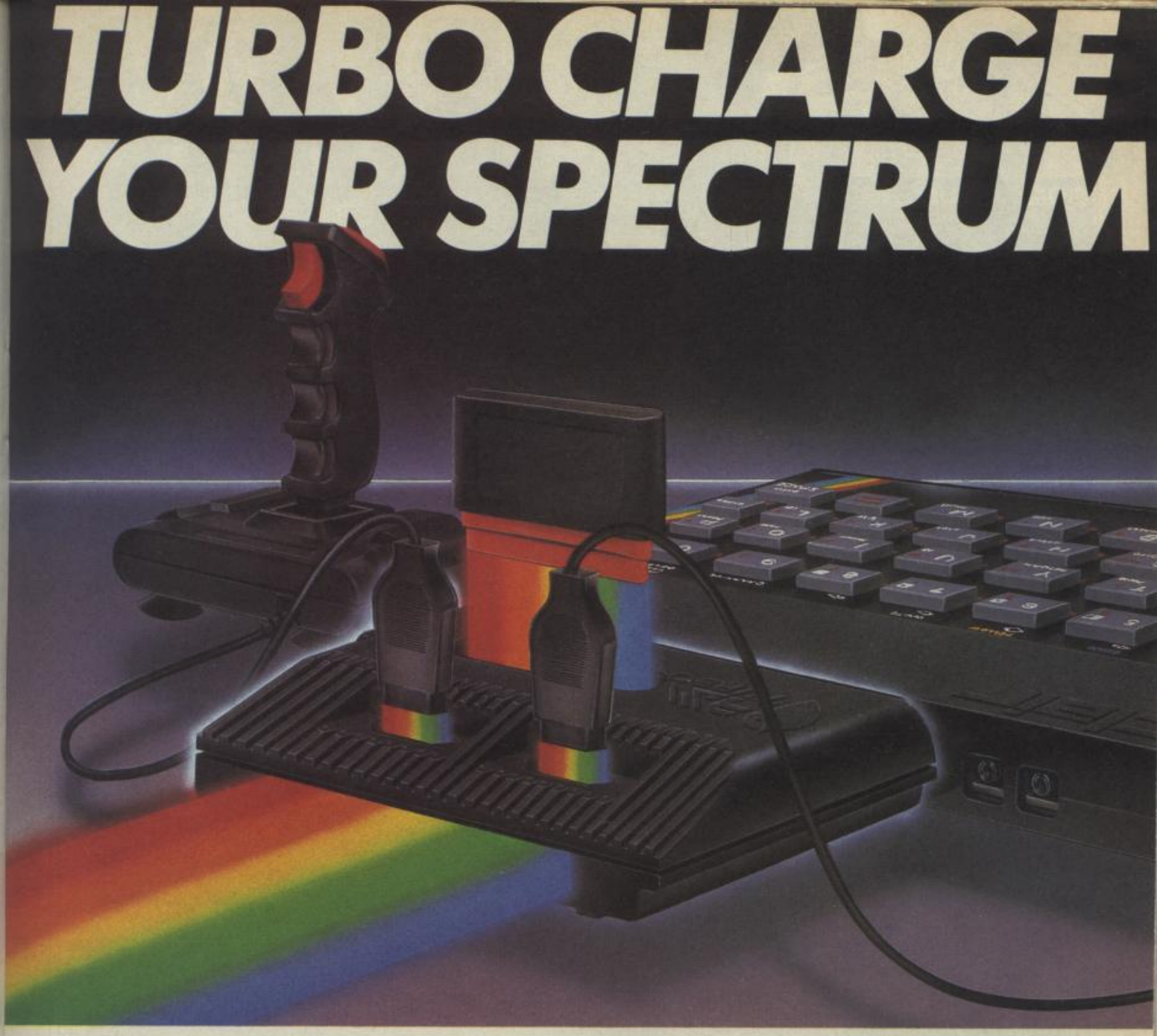

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DONE AGAIN . . .

Dear Editor
It's 'appened again! It's not fair! I bought *Scrabble* at Smith's for £9.95 — a week later it was in their sale at £1.99. My VTX5000 modem cost me £69.95, just before they reduced it to £49.95 with a quarter's free subscription to Micronet. I purchased Interface 3 for £39.95: now there's one better at £29.95!

Now you go and do the dirty on me as well. Last week I purchased — guess what — yeah, you're right, a Comcon interface at £19.95. And what do you do? Do a really splendiferous deal for a Comcon, plus a subscription to CRASH for only £24.95. What have I done to deserve this?

I think I'll have to buy this new mag you advertised in your August issue — it seems to have been produced just for people like me — ie losers!

Can't you do something to redress the balance, perhaps a year's CRASH subscription, all the latest software lying about the doss house (sorry, office), software house freebies. Anything?
Mike Cannas, Bradford
PS Hope they don't reduce the cost of a First Class stamp after I've posted this!
PPS My house sale has fallen through, and my car won't start.
PPPS My wife won't run away with the milkman

Some days, life is just like that. I've got this thing with lifts — they always go wrong when I get in one, but look on the bright side, I always say, I'm now very fit from walking up hundreds of flights of stairs.
LM

LATE AGAIN

Dear Lloyd,
I have decided to write to you, because of a small fault in your super, magnificent, brilliant magazine (creep creep).

The fault is not actually IN the magazine, but in the delivery. A long time ago (August 1984) I took out a year's subscription to CRASH, and in the front of each magazine there is a box which says when the next issue will be on sale from. This happens to always be the last Thursday in the month.

Usually, my subscription copy arrived on the Tuesday of the week, and I could laugh at all my friends, because I got CRASH first and could say things like 'Match Day got 83%', and wouldn't know whether to believe me or not.

BUT issues 16, 17 and 18 all arrived on the Friday of the week, and my friends started getting their own back, because their copies came from the newsagents on the Thursday.

So, you people at CRASH, get this error sorted out and make sure my copy arrives on Tuesday. If you do not do this, heads will roll.
Paul Beaton, Church Eaton

Well, Paul, the story goes like this: The printers deliver our copies at around the same time they deliver the distributor's copies, ie approximately one week before the Thursday on sale date. If they're quick 'upstairs' at getting the subscription copies out, then you get yours nice and early, but if the printer delivers ours later than usual (which happens now and again), and they're slow upstairs (which happens now and again due to things beyond their control), AND the newsagents put their copies out earlier than they really should (which happens now and again and in certain places), then it's true your friends might get theirs before you.
BUT they don't get all those nice clear plastic CRASH envelopes do they?
LM

REVIVING AN OLD FRIEND

Dear Lloyd,
I was having a friendly chat with one of my phone pals recently, about how Spectrum software has progressed. For example, do you remember the good old days of *Alien Attack*, *City Bomber* etc? Of course, they have been taken over by much better and much more playable games. Graphics, sound, all of these things have improved tremendously. It seems now, that programmers have reached the limit of the Spectrum's capabilities and can only improve games in terms of originality. I find that when I buy new games, instead of improving they are staying at one level. I realise that Mikro-Gen have brought out a device which brings the Spectrum's memory up to 64K, but it's going to have to stop somewhere isn't it? As much as I love my computer, I feel that it's reaching its peak of performance and people are going to want more.

I would love to see a Mega-Spectrum with about 200K, 3-4 sound chips, no attribute problems and still be able to load your old 48K games. The only problem would be the price tag attached to it. Do you think you would have to win the pools to buy one?

I think I must have about thirty items of new software that I never use because I've either solved or become bored with them. It's about time that someone came up with something new.

The point I'm trying to make is; do you think that the Spectrum is going to be in the museums in the near future or do you think some bright spark will save it with a sort of add-on before it's too late? It would be interesting to see what other readers think and what they would do to revive the good old Speccy.
Rick Casy, Dyfed, Wales

I seem to remember saying many times in articles or review comments, that such and such a game takes the Spectrum to its peak. And yet each time I say that, someone comes up with another program to amaze. So I'm not sure I entirely agree with your main point, although the improvements are beginning to look more like refinements. But with novels, you expect a good involving story, some original thinking, and hopefully, something to provoke your own thoughts. Can that not be true of good computer games — that you don't expect staggering advances in technology but in content? What do other readers think about this then?
LM

INTERFACE INCOMPATIBILITY

Dear Lloyd,
I have been a reader of your magazine since Issue 1, and would like to complain about a subject that hasn't been mentioned before.

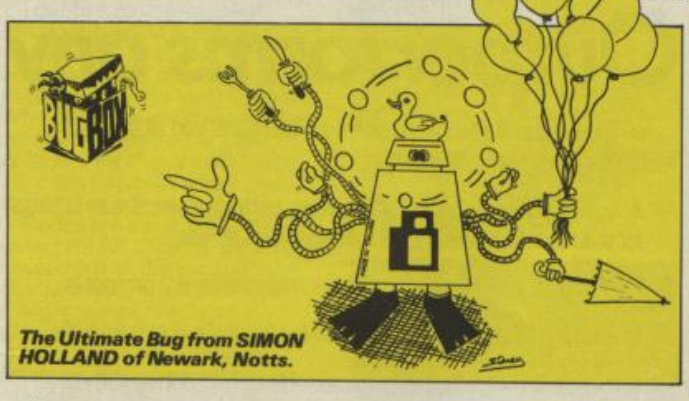
Frankly, I am surprised that there is still the odd game being produced that is not compatible with Interface 1, especially since it has been on the market for a year and a half now, and I would imagine that a large proportion of Spectrum owners have got one.

I could understand it if earlier programs were incompatible, but there should be no excuse for it now.

I should like to know the views of companies like Richard Shepherd and Firebird, as they are both guilty on this score with *Urban Upstart* and *Buggy Blast* games respectively. Why do they employ idiots who must think that no-one will add anything to their computers bar a joystick interface. They don't even have the intelligence to put a message on the box stating that the program is incompatible with Interface 1.
J Green, Lancing, Sussex

According to recent figures, something like 100,000 Interface 1s have been sold, or approximately 3 to 5% of the Spectrums sold, so it's hardly a large proportion. The simplest way round the problem is to remove the interface of course. But it would be nice if someone at Firebird would comment on this . . .
LM

***KUKEE KHAN** reckons me 'ol mucker Rob Candy has several things to get off his chest . . .*



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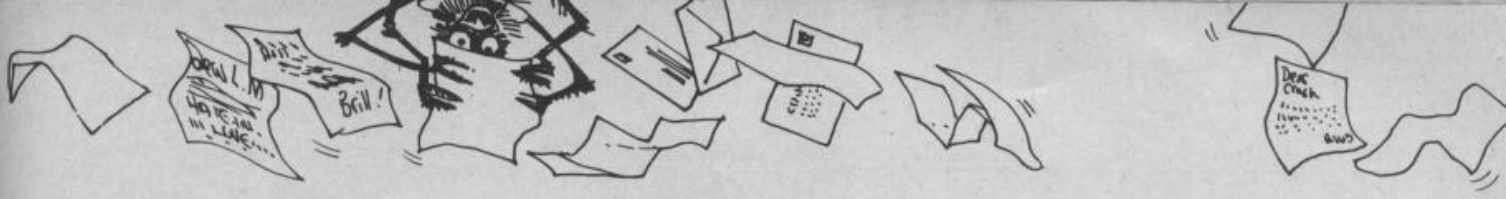

WHAT'S GOING ON?

Dear Lloyd,
I feel it my duty as an upright, CRASH-reading Spectrum owner, (so don't tell Candy) that there is a spy in your midst.

I know it will come as a shock to you, but some commie (Commodore owner) has managed to infiltrate your fab mag. I refer to your wordsearch quiz to win a copy of *Exploding Fist* in issue 14. A competition setter had put 'Zzap rules ok yah' along the bottom line. The idiot responsible should be strung up by the most painful means from the nearest gaslight in sleepy Ludlow. (Where is that place anyway?)

I urge you to find the traitor and remedy this situation immediately, or even better, send a commando raid against Zzap and do the same to them.
Yours suspiciously
Mickey 'Bugs' Flynn, Reading, Berks

This disgrace has been revenged, and once again the sleepy hollow in which nestles the comforting structure known as the Ludlow gibbet, squeaks to the slow rhythm of a swinging competition file hacker. And anyway, where's Reading?
LM

PAWS FOR THOUGHT

Dear Sirs,
First, may I congratulate you on your excellent magazine which should be found on any discerning Spectrum user's shelf.

I would like to thank you for your very good review of my game, *Paws*, in issue 19. I thought that, on the whole, the comments were fair, but would like to point out a few errors and omissions that were made:

The program was stated as being written by 'various' — I've been called many things, some unprintable, but never various. The entire program, graphics, sound and title screen were all designed and written by me. One person.

Secondly, there are 9 levels in the game, not five. You must work up from the first five levels and as you do so, the number of dogs that come into town alters (about 300 on level one, to over 2,000 on level 9), as does the pack speed.

Finally, there was no mention of the Save Game facility, which I'm sure would appeal to many people.

Perhaps if the last point had been spotted, then the ratings may have been another percentage point or so higher on some aspects — particularly as all the programming was done by one person and not the now standard 'team'.

All said and done, however, the review was fair and in some places made me feel quite proud of what I had achieved.
A W J Adam, Beverley, N Humberside

Software editor Jeremy Spencer has had his neck measured for the Ludlow gibbet (which regular readers of CRASH may have noted has not been much in use this summer due to the poor weather). Jeremy has just leant over the shaky carriage of my 1922 Hermes schreibmaschine to say that as you (all) took so long in deciding on a name for the game, surely he's entitled to just a weensy error or so, or three? NO? No, perhaps you're right.
LM

A (LETTER)

Dear Lloyd,
Have you realised that most companies which condescendingly agree to say how wonderful they are in your magazine go bankrupt soon afterwards? Imagine, Carnell, Rabbit, Blaby, Fantasy . . . Design Design, Gremlin Graphics and CRL must be scared stiff!

Right, now my major point: strap yourselves in for this one. BRACKETS! The great new game from Newsfield. Take any issue of CRASH. Turn to any editorial page, and count the brackets. Fun eh? Do you realise you could be influencing a whole generation to write in the same manner?

Stop before it's too late! (It might be already). I suppose it's better than C&VG, who are hopelessly addicted to exclamation marks . . . . . .
'Anon', Sussex

Dear Anon, sorry to cut out your first points about your piracy habits, but the subject's getting a bit tedious. As to your second point, perhaps the name of the magazine has something to do with it, or perhaps (and according to Robin Candy) it's just because they can't handle the fame!!!! (!!!!). As a matter of fact, Blaby is still going strong, but not in an obvious way, their software is being sold at extremely budget prices through selected newsagents.

What's wrong with ()s? As for ! — we'd never dream of using them!
LM

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Some members of the CRASH team portrayed by . . . gosh sorry, the name and address parted company from the illustration, but whoever, it's very good — hoplessly inaccurate of course.

BOWIE BOP

Dear Lloyd, I bet you didn't know that David Bowie has a 48K Spectrum did you? Well he has, and he likes playing on it so much that he just can't stop singing about his favourite games. Here's his top 20:

1) LUNAR JETMAN — Starman
2) ZOMBIE ZOMBIE — We Are the Dead
3) KNIGHT LORE — Changes
4) BOOTY — Red Sails
5) CHEQUERED FLAG — Always Crashing in the Same Car
6) FRANK 'n STEIN — Hang On To Yourself
7) HERBERT's DUMMY RUN — Scream Like a Baby
8) HUMPTY DUMPTY — Weeping Wall
9) JACK AND THE BEANSTALK — Don't Look Down
10) SHEER PANIC — I Dig Everything
11) JUNGLE FEVER — Quicksand
12) PINBALL — Richochet
13) MONOPOLY — Move On
14) PYJAMARAMA — When I Live My Dream
15) HANGMAN — Boys Keep Swinging
16) SCUBA DIVE — Subterraneans
17) TRAIN GAME — Station to Station
18) MOLAR MAUL — Sweet Thing
19) KONG — Beauty and the Beast
20) MUGSY — Criminal World
John O'Connor, Stalybridge, Cheshire

I don't believe a word of it, John, you've made the whole thing up. Still, it does make a change from the Bop as you Zap we have been having. Can anyone else put a singer's songs to games like this?
LM

PENPALS WANTED?

Dear CRASH,
I would be very pleased if you could publish this letter in your magazine. I'm French and live in Canberaie (near Paris) and I own a 48K Spectrum. I would like to become a member of a Spectrum Owners' club because I want to exchange programs, news and ideas with British users. If there are any clubs or people who will correspond with French or European users, please could you give them the address below.
Pajand Jerome,
57, une Segoffin,
D2400 Canberaie,
France.

Now this could start off something interesting. The good old Spectrum could take over the world yet! If there are any takers for this kind of offer, let us know — we could end up with a 'PENPAL PINBOARD' (Graeme's title, not mine). Just make sure you include your full name and address. You can't be sloppy with this kind of thing. Here's another one . . .

Dear CRASH, I am 16 years old and own a 48K Spectrum Plus. Also I have an Epson RX80 F/T printer that I use for word processing and I am interested in machine code. Penpal wanted, boy or girl, any age.
Brian McKenna
30 Roemill Gardens
Limauady
Co Derry
N Ireland BT49 9AU

AH SO WORDSQUARE

Dear CRASH,
I was horrified to find that in your *Way of the Exploding Fist* competition, on the bottom line of the wordsearch grid, it clearly said 'ZZAP RULES OK'. Have you lost all faith in CRASH? Or is one of your staff a traitor? Surely it should have read 'CRASH RULES OK'!
Craig Stewart, Banff, Scotland

You just can't find the staff these days, that's the trouble, but we got our own back in the DAMBUSTERS competition, which contained a few rude things about ZZAP! reviewers Penn and Rignall, who sabotaged the FIST competition! There's no doubt that CRASH rules just fine . . .
LM

HOW MUCH?

Dear CRASH,
Do you pay for letters printed? If so, how much? If not, I will send all mine to Sinclair Programs — they pay a healthy £2.00.
Paul Weller, Reading, Berks

Yeah, but we give a much more valuable prize for getting letter of the month status, don't we? And what's more, it's going up — sorry — gone up, from £12 worth of software of your choice to an absolutely, totally astonishing, completely crazy £20. YES that's two-zero pounds. Can you beat it? By the way Sinclair Programs has stopped publishing, so there goes your £2 anyway.
LM

WAITING FOR GAMES

Dear Lloyd,
I belong to a mail order club, but I think that because of the poor reliability of games, they will not be with us much longer. Thank God. In the magazines the clubs send you, they tell you that all their reviews (all 29 of them) are unbiased. This is a load of rubbish. Only on the odd occasion are they like this. The reviews are often short. They don't tell you much about the games except RECOMMENDED in block capitals — not even a patch on the CRASH reviews.

Then there are the prices. Once you've paid the postage and added the cost of a postal order, there is hardly any difference from shop prices (and you do not have to wait when buying from a shop). If the games have to be returned because they are faulty, you have to wait even longer. When I sent two back, one arrived two weeks later and I had to write off for the other, which took another week and was returned with a £1 voucher only redeemable — you guessed it, when you buy another game off them.

In their last magazine, they did the worst thing possible. They printed an article with the heading 'Crash not Smash' just because you wouldn't let them advertise in your great mag. In my opinion, CRASH is better value than the £5 membership you have to pay to join, any day.
David Thomas, Solihull, W Midlands

Thanks for the vote of confidence, David. It's rather hard, if you are reviewing games only to sell them, to be completely objective. Before I started with CRASH the magazine, CRASH was a mail order house (not discount), and they produced several illustrated catalogue 'magazines', from which eventually CRASH the mag developed. In those catalogues (I was looking through one the other day) the reviews were not exactly unbiased for obvious reasons, and I know there was some feeling that when the magazine started and needed unbiased reviews, the mail order would die away! The opposite happened however. As this company is still mail order oriented, it doesn't make much sense to let other mail order houses advertise and take advantage of us, especially if they are discount outfits. In a sense, you get a discount from CRASH in as much as the postage is paid as well as subscriber discounts and regular customer discounts. So I guess it all adds up to reasonable value.
LM

SQUEEZING IN THE GAME

Dear Lloyd,
Firstly, several of your readers cannot afford to buy games regularly and that includes me. So, to make life easier for us why not choose a game of the month out of the CRASH Smashed games in each issue. Also why not have a 'worst game of the month.'

Secondly, if companies like Mastertronic and Firebird can have budget software, then why can't the major companies like Ocean and US Gold have the same? Of course, they could keep their top of the range games.

Thirdly, I wonder if the software companies realise how much pain they are causing when they put their games in non-standard cassette boxes. Lately, guilty parties have included Ocean and Ultimate. The games just don't fit in cassette cases.
Steven Johnson, Sussex.

The main problem in your first point is that personal taste always comes into any criticism, even with a number of opinions involved. Some magazines like to say that their top games of the month are picked despite their biased and eccentric attitudes, which is fair enough. We would prefer to agree collectively on a handful of good games and let you make up your mind from reading the review introduction and the critical comments. We also feel that our job is to support the industry rather than knock it, and a poor game review should stand on its own without knocking the product or software house any further by tagging it with a derisory phrase.

As to Ocean or US Gold's pricing policy, there's not much I can say. Each software house has its development and general overhead costs, and has to be free to price games to suit their strategies. For all I know, they may be thinking along the lines you suggest, but I doubt it.

We've had the one about different sized cassette boxes before, and it boils down to what's called 'Consumer Appreciation' and 'Consumer Enhancement' — nice ways of saying that if something looks big and glossy, it'll sell better.
LM

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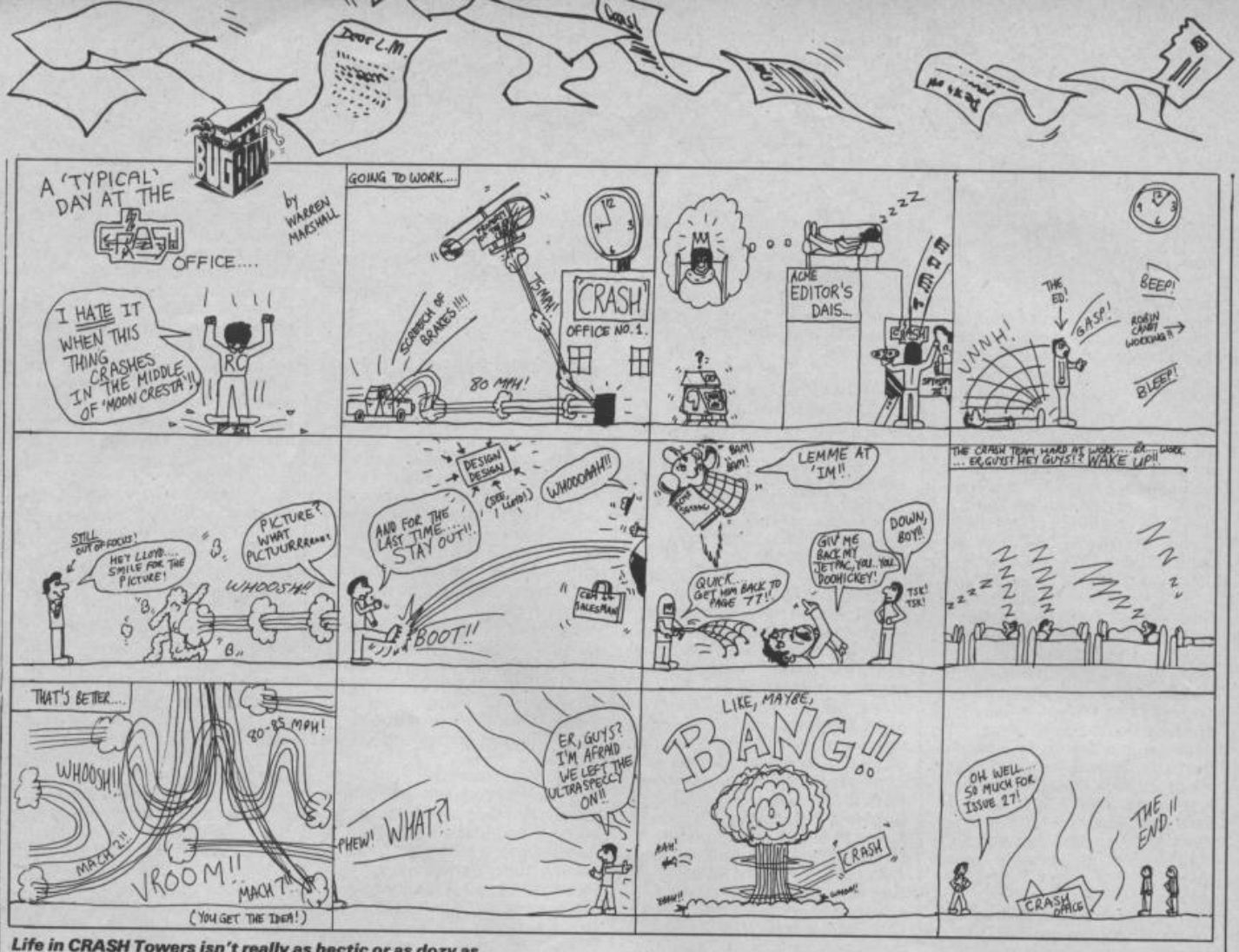


Life in CRASH Towers isn't really as hectic or as dozy as WARREN MARSHALL from Wanstead pretends — well it is as hectic actually.

RECLINE RECLINE

Hello,
Before I say anything else, I would like to point out that (unlike any other Spectrum owner) I am totally sane, OK?

Concerning Design Design, I have found out that if you press the 'x' key 42 times whilst playing *Dark Star* upside down, naked and in the garden, then you get funny stares from all the neighbours, catch a cold and get arrested (not necessarily in that order). No one else, to my knowledge, has discovered this as yet!

There are a few other things I want to say:
Give Lloyd Mangram more money.
Someone poke Robin Candy.
Why am I so brilliant (and so modest, good looking etc.)?
Why do I have a headache?
Is there anybody out there? (Good song)
Does anybody care?
Why?
Goodbye,
An Eggman, Harrow, Middx
PS: This is my fail—safe method of getting letter of the month (or munf).
PPS: At least I think I'm sane.
PPPS: Okay, I'm sane (so am I).

Who says? I think Design Design get enough free publicity as it is, without loonies like you going over the top and flinging your clothes all over the garden.
LM

A MISMOLE

Dear Lloyd,
Was that really you writing in that awful magazine, Zzap! 64?

In the June issue of Crash there was a profile of Denton Designs which your team said they visited. The very same profile appeared in Zzap! 64, except the Zzap! team said that they had visited them. What's going on?

Now that's over with, we're onto Robin Candy. He said that once you lose a life on *Monty Mole*, there was no way out if you were using infinite lives (ala the *Jet Set Willy* syndrome). Is he thick? There is a way out! Move the joystick to where you want to land and press the fire button to jump. You have to do this as soon as you have lost your first life by having joystick and fire button pressed at the same time. (Simple Eh?)
Mark Bonnar, Glasgow, Scotland.

Actually the same team visited Denton Designs, along with every other computer magazine in Britain I think (not on the same days), so the article was slightly rewritten to suit either mag, but appeared first in CRASH. After all, Dentons work on both machines. I wanted to get my brother Ffllloyd Mangram to work on Zzap, but he said the pay wasn't good enough to give up his post as senior consultant to the Atomic Energy Commission. As for Robin Candy, well he's only almost human, well nearly anyway, well he thinks so — and you know what they say about humans (well on the planet Ariadne V they say it)? Humans can make mistakes. And Robin says you are not telling the whole truth anyway.
LM

GETTING TOO HARD?

Dear Lloyd,
I have written to you to have a grumble at the software companies of today. Their games are improving all the time but they are also getting too hard for the average games player. Take *Technician Ted* for example. I could only complete seven tasks using the pokes in issue 19 of your brill mag. There are many others like *Lords of Midnight*, *Undewrwurlde* and *Dun Darach* which are too hard as well. I think that if games are going to be this hard, then they should have skill levels. It's for games like these that pokes are really needed from CRASH.

One last thing before you go off thinking I'm feeble at playing games; all my friends at school (not all of them Spectrum owners) agree with me. So come on software companies, make your games a bit easier.
Javid Karim, Royston, Herts

I wouldn't think of suggesting you're feeble, or all of your friends at school. I wouldn't say a thing like that, now would I? But lots of readers write in to say how quickly they work out the problems in games like Dun Darach, *so some people are better suited to 'harder' games than others.*
LM

LIVING GUIDE

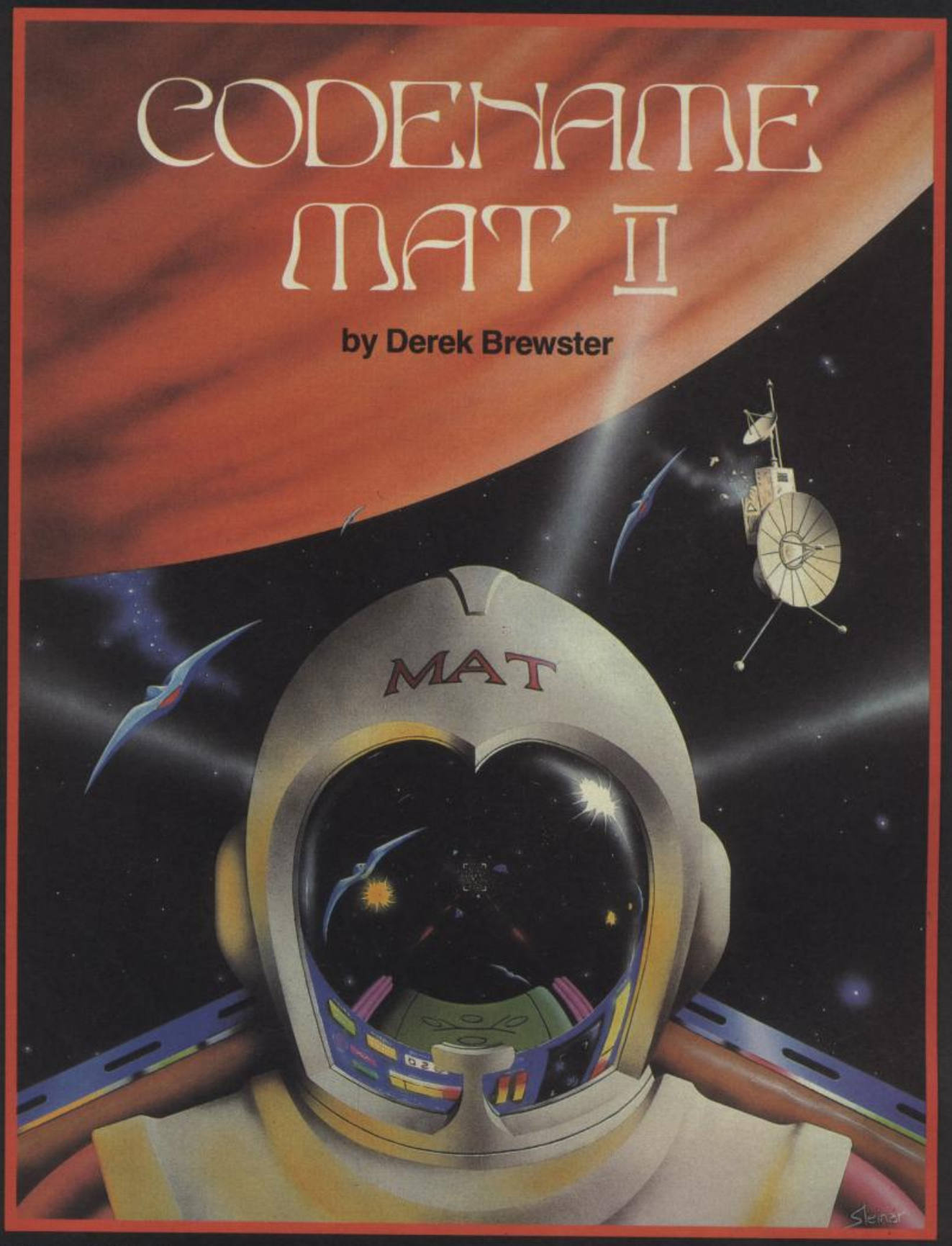
Dear Lloyd,
If you are not bringing back the Living Guide to Software, then I would like to see an index with all the games reviewed in CRASH listed with their overall ratings. Also, in the Hotline charts, there should be a top ten for wargames.
Christopher Thompson, Tyne & Wear.

If you mean all the games EVER reviewed in CRASH, then you are talking about a lot of work! Rather too much, and too much of a space taker as well. In fact, binder owners received the (infamous through unpunctuality) binder index that listed every game up until last Christmas. That compilation was a nightmare to produce! I'll ask about a wargame top 10, but I doubt whether there's enough turnaround of Spectrum wargames to really make it that worthwhile.
LM

DOMARK

CODENAME MAT II

by Derek Brewster



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ANDREW SZEBENI from Purley, has long desired to see a change of the CRASH logo, and has sent in three new designs, despite admitting that he was never endowed with exceptional artistic talent. Oli Frey watch out . . .

TROUBLE IN SPACE

Dear Lloyd,
In your August issue, I read that someone had some difficulty when he bought a copy of *Starion*. I too received a defective version of this game from a shop in Guildford. Off I had to plod, back to the shop, where I got my money back, thankfully. Now, methinks, why don't I buy the same game but from another shop? Brilliant! So down the road I go, doing a great impression of Cuchulainn the Great until I reach the next Computer shop. I rushed in and bought myself one of their many *Starion* tapes.

However, my delight was to be short lived as, on returning home, I found it to be faulty, just like the first one. Once more did I have to plod to Guildford to get a replacement or better still, a refund. The bloke in the shop loaded the game so I could show him the fault but would he change it? Oh no, instead he told me to be careful which buttons I press in future, which left me then feeling more like Clive Sinclair (ie disappointed) and cheated out of a few bob.

At last, I returned my copy to Melbourne House who sent me a good copy along with a letter of apology. Luckily it turned out alright for me, but I can't help thinking about how many people have to go through all this and then lose out. Who is at fault? Should the shops be to blame for not testing at least one tape from each manufacturer? And should they be so hard on their customers? Is piracy so bad that actual proof is no longer enough or should the companies have better quality control to overcome the problem altogether? And will the universe suddenly — Oops. Sorry, don't know how that got there. Hope you answer all these questions.
Gavin Mawdill, Guildford, Surrey

You've got to be kidding! The only one I can answer is that the universe is collapsing inwards at an enormous rate, having just reached its peak of expansion last Thursday. Like an ebb tide, the future of mankind is doomed — only about seven billion years left to go . . .
LM

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PRE-SMASHED?

Dear Lloyd,
Whilst browsing through my local software store today, I noticed Odin's *Nodes of Yesod* game which you previewed in your Merely Mangram column in issue 18. Taking the Ultimate style case off the shelf, I saw the striking 'Crash Smash' logo emblazoned on the front. This struck me as odd to say the least as no review of the game had appeared in CRASH to date. Even funnier was the fact that the next issue was still twelve days away from publication date.

So why does this game already bare the logo when the review (is there one?) has not been published in CRASH yet? Are Odin very confident about their new game or is it all just a fraud?
A Oysten, Lancaster

No fraud at all. If you remember, in my column I said the production version of the game appeared about two days too late to be able to review it decently in that issue of CRASH. Within a few days more, the reviewers had all had a good look and the review for the following issue was written up with several days to go before the issue would be put together. Odin asked how the review had gone and were told, quite correctly, that it would appear in the next CRASH as a Smash. Odin happen to have some nifty printing contacts and after being given permission, had the labels printed up very fast and attached to the outsides of their packaging. This isn't the first time this has happened either.
LM

UNBEATABLE VALUE

Dear Lloyd,
First of all, I would like to say, 'Hi' (I'm new to the wonderful world of CRASH). I would like to shower Mastertronic with compliments. I have a few of their games, one being *Wizard's Warriors*. Apart from being misled by the cover and not having megafab graphics, it is an enjoyable game and quite addictive too. The second is *Chuckman*. Again, it does not have any brilliant graphics but Mastertronic have added a few nice touches like putting the chuckman on a skate board and having him tap his feet when he stops. Last but definitely not least is *Finders Keepers*. This is a game which does have very good graphics and again is very enjoyable. Now all these games have one thing in common; they are all £1.99 — unbeatable value for money.

In this computer age, when people are prepared to pay out £10 for a game, it is nice to know that you can buy a game more or less with pocket money.
Stephen McGirr, Belfast

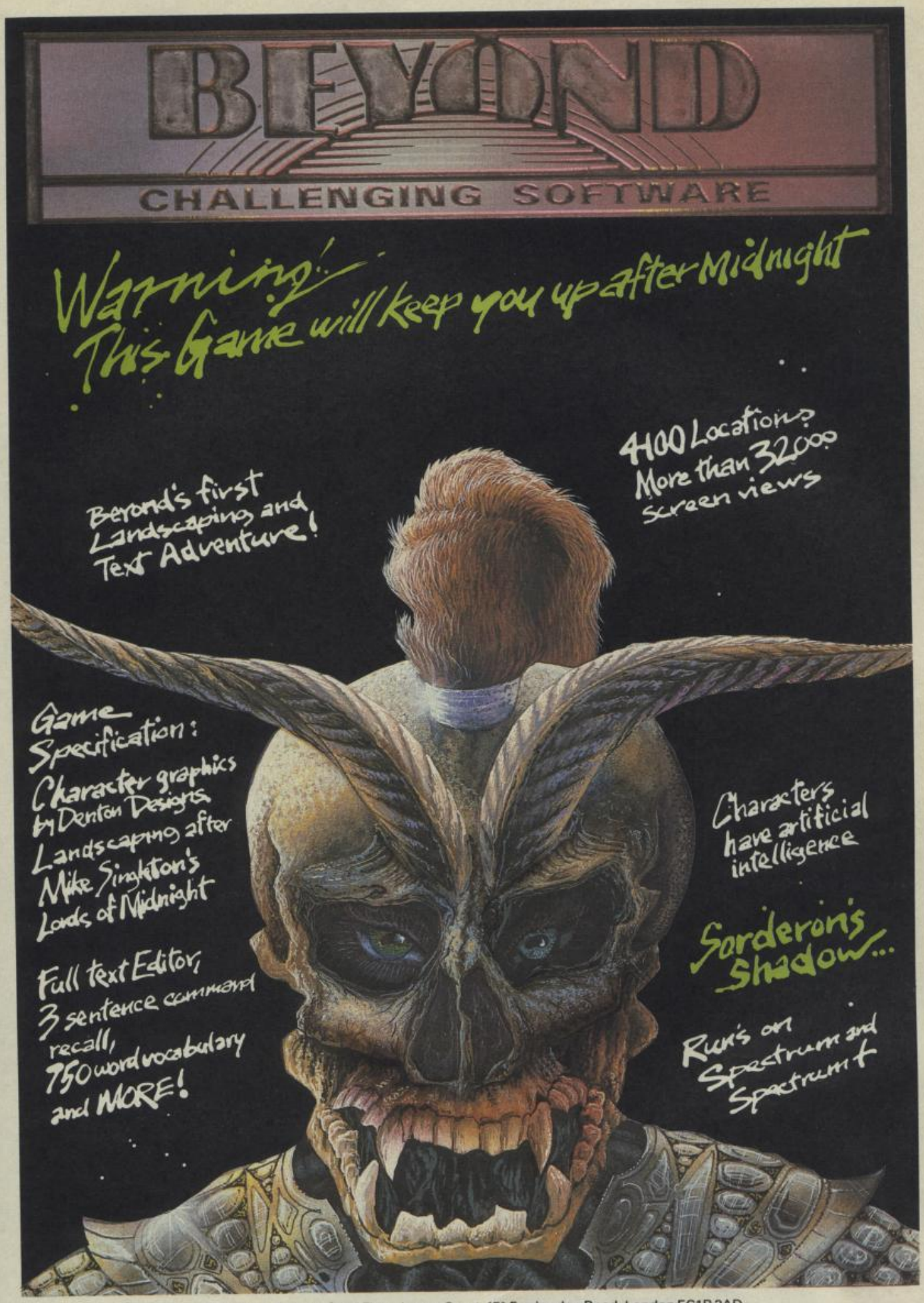
Here beginneth the history lesson. Mastertronic started off by buying in (and still do) games from other programmers or software houses. In fact Wizard's Warrior *is over two years old, and was first released by a company no longer with us called Abersoft. It was reckoned to be pretty good at the time, and still looks okay today.* Chuckman, *comes from the same period, released first by Kaydee, who 'sort of' disappeared, then it was put out under the CCI label, and has now turned up as a Mastertronic. So while you can praise Mastertronic for their prices, it's only fair to say that it was not they who put Chuckman on a skate board.* Finders Keepers, *however, is a different matter, as that was one of the more recent Mastertronic releases that they originated.*
LM

LET US PLAY

Dear Lloyd,
I am writing to you about playing games on computers in shops. When I visit one of these shops and see a game that looks good, I like to play it before buying. In some shops they won't let you do this at all. Wouldn't it be better if they didn't mind, and to keep people from messing about on the machines, they ran a high score competition on a game like *Dark Star* (had to get that in).
By the way, how much is *Dynamite Dan*, because I've seen it advertised for £6.95 and you said it was £5.95?
Stephen 'Eros' Hogan, Finchley, London

Shops ought to let you look at a game before you buy it, but you should also realise that sometimes it's difficult. Games can take ages to load, and it means tying up the assistant not only in loading, but also in watching in case anyone less scrupulous than yourself decides to run off with the cassette. This does happen you know! Dynamite Dan is £6.95 — I guess either our egregious software editor slipped up, or Mirrorsoft changed their minds before releasing the game.
LM

Right, that's your lot for another month. It's difficult writing a quality outro when you have Robin Candy spying over your shoulders hunting for outro writing tips. So I won't do too much for fear of boring him. Don't forget to keep the letters coming in, and don't forget Micronet. Don't forget me either.
CRASH FORUM, PO BOX 10, LUDLOW, SHROPSHIRE SY8 1DB



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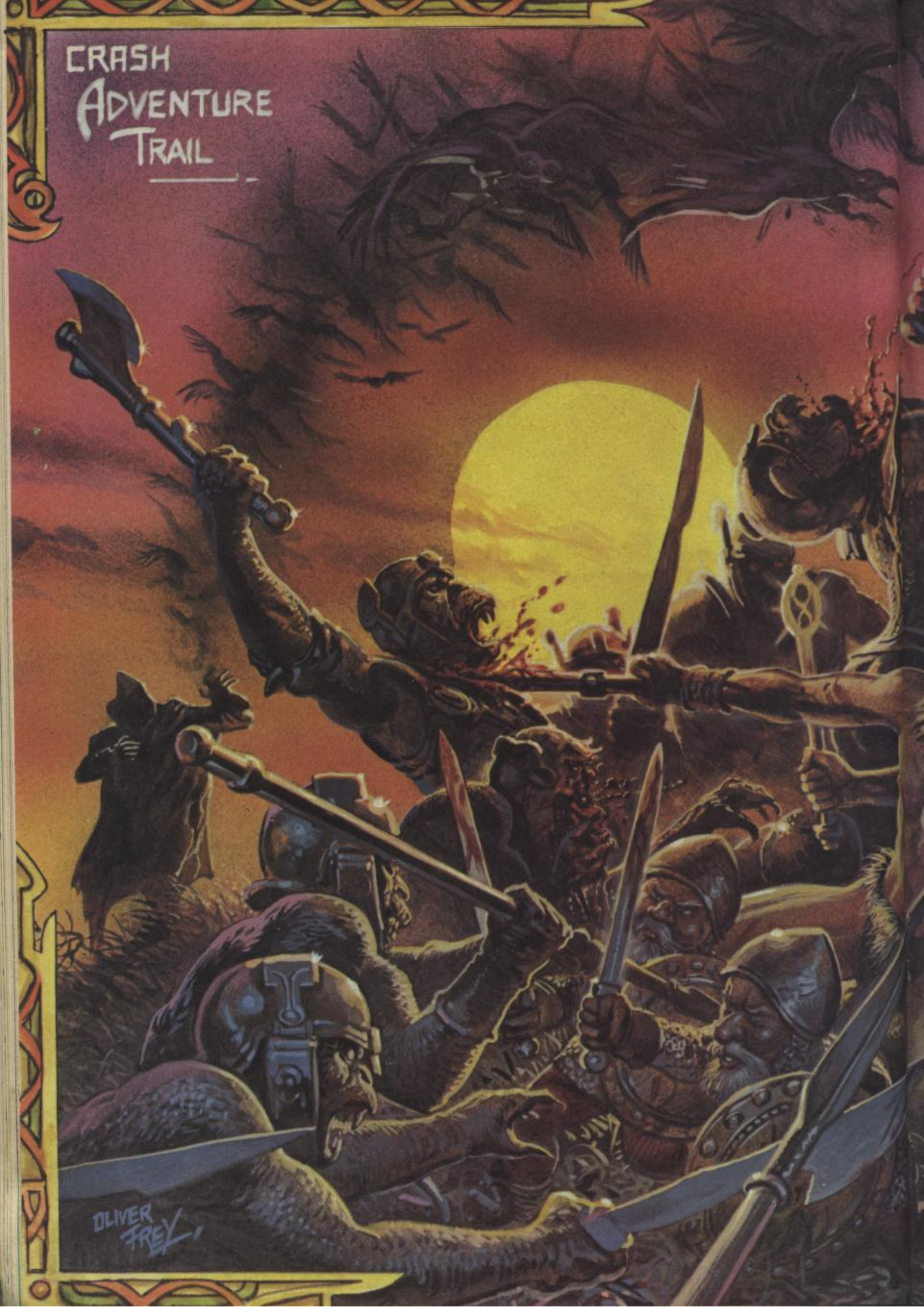
CRASH
ADVENTURE
TRAIL
OLIVER
FREY

LLOYD MANGRAM'S HALL OF SLUME

It appears that most of you are still bashing your joysticks on the proliferation of Summer sports games (and informing us of *every* detail). No pokers are going to achieve fame though — they'll all be hanged beside Jeremy Spencer on the Ludlow gibbet.

Hypersports swimming, 26.88; shooting, 9100; long horse, 8.69; archery, 3450; triple jump, 13.64; weight lifting, 210
Hobbit completed
Bruce Lee completed 10 times
Football Manager top of division won FA cup every year.
Full Throttle 1st at all tracks
Pyjamarama 100% completed
Match Day won 2-0 in final
Chess tutor beaten on every level
Hunter Killer killed sub 5 times
David Carter, Worcester

Pyjamarama 87%
Hobbit completed
Match Day won on all levels
T.L.L 23,483
Ant Attack completed
Underwurlde 17% completed
Zombie Zombie completed 24,141
Pinball Wizard 35,785
Full Throttle 1st on Darnington
Trashman 11 bins
Skool Daze 21,340
Death Chase 32,126
Starstrike 1,530,800 level 7
Timegate completed all levels
Manic Miner completed 3 times
Atic Atac completed 99%
Beach Head completed
Danger Mouse in Double Trouble world saved 5 times
Football Manager completed everything
Maziacs completed all levels
Sabre Wulf 89%
Alien 8 20 chambers
Knight Lore 98% completed
Ad Astra time:28.44; score:51,190
Wheelie reached nightmare park
Geoffrey Riley, Ipswich

Spy V Spy won on first level
Match Day 7-1 in final
Hypersports 59,455
Starion completed
Jet Set Willy 2 57 items
Witches Couldron completed
Everyone's a Wally 1,950
Daniel Garcia, Edgeware

The Hobbit completed 98%
Everyone's a Wally completed £2740
Alchemist completed
Tir Na Nog completed
Matchpoint won all levels
Manic Miner completed
Penetrator completed
Jet Set Willy 68 objects
World Series Baseball won 16-3
Atic Atac 97% completed
Alien 8 6 cryonaughts activated
Ant Attack 4 girls
Jungle Fever 868
Cookie cooked one cake
Matthew Edwards & Robin Powell, Derby.

Everyone's a Wally £650
Starstrike 1,310,100
Knight Lore 55%
Underwurlde completed
Finders Keepers £758
Kokotoni Wilf completed
Bruce Lee completed 5 times
Ghostbusters completed
Beach Head completed
Spy Hunter 61950
Simon Myszko, Crowthorne.

Manic Miner completed
Starstrike 1,361,9200
Atic Atac 71%
Jetpac 81,770
Hobbit completed
Kung Fu Black belt level 7
Match Day won F.A. cup
Beach Head 154,000
Bugaboo 53 seconds
Full Throttle 1st on all tracks
Ghostbusters ¼20,000
Everyones a Wally completed
Mugsy 81%
Mr Wimpy 46,000
Wayne Edney, Wainfleet.

Tank Duel 3700
Raid over Moscow 36900
Bruce Lee 401400
Ant Attack 10 girls 44487
Sorcery completed
Booty 73 times
Arcadia 1656 level 12
Frank 'n' Stein 156 level 11
Hunchback 79500
Finders Keepers completed
Boulder Dash 5157
Monty is innocent 1min 39secs
Paul Giles, London

Grand National 100pts £999,999 after 19 races
Atic Atac completed
Sabre Wulf completed
Mazeman 16,090
Meteor Storm 37,820
CDS pool 1,090
Bruce Lee Wizard destroyed 3 times
Matchday won in final
Matchpoint won in semi-final
Steve Davies Snooker highest break 28, highest score 98
Stephen Raven, Colchester

Hobbit completed
Jetpac 299,850
World Series Baseball 69-1
Atic Atac completed
Jet Set Willy completed
Ghostbusters £850,000
Wheelie level 8
Leapfrog 907,580
Steve Davies Snooker break of 67
Knight Lore completed
DT's Decthalon day 1:539,652, day 2:590,050
Guy Tanner, Salisbury

Hypersports 137798
Tapper 83775
Spy Hunter 230,525
Stephen France, Sydenham, London

Trashman Widcombe Hill
Stop the Express stopped once
Sabre Wulf completed 95%
Bruce Lee completed 5 times
Frank Bruno's Boxing Andre Puncheredon
Everyones a Wally completed £2790
Skool Daze completed
Vicky Burnley, Huddersfield.

Bruce Lee 513800
Kung Fu black belt level 7
Everyones a Wally completed £2740
Brian Jacks 2 level 42216
Spy Hunter 710450
Starstrike 288500 on easy
Sabre Wulf 97% completed
Underwurlde 94% completed
Knight Lore completed
Pyjamarama completed in 2616 paces
Jet set Willy 2 completed 2:15:45
Atic Atac completed 7 mins 42 secs
Danger Mouse in D.T completed 6 times
Nodes of Yesod 90% completed
Kong strikes back 11480
Finders Keepers completed
Andrew Duff, Kendal

Beach Head 101,700
Pyjamarama completed 92%
Jetpac 4,750,050.
Ghostbusters 70,200
Spy V Spy 8902
Hobbit completed
Battlecars circuit in 1304
Hypersports 12,072,575
Jolyon Hogarth-Scott, Bristol
Lloyd, can I have a T-shirt for my hamster?

Sinbad completed
Invincible Island completed (100%)
The Hobbit completed
Ship of the Line completed
Atic Atac completed
Steven Cook, Houghton Regis, Beds

Bruce Lee 653,900
Match Day Won Match Day Special
Cookie completed
World Series Baseball Won on all levels
Ghostbusters £115,000
Wizards Lair completed
Farenheit 3000 43 valves
Iain Blyfield, Harrogate, Yorks

Atic Atac 51,840 87%
Tranz Am 22 cups; (shortest time 2:10)
Planetoids 180,000 (approx)
Chequered Flag Cambridge Ring; 59.16 secs
Underwurlde completed
Jetpac 22,670
Manic Miner 16th Cavern (22,956)
Cookie Baked cake (19,280)
S.P. Millinship, Arnold, Nottingham

Everyone's a Wally completed
Colossal completed
The Hobbit completed (87.5%)
Night Gunner Mission 12 12,660
Chuckie Egg 2 257,318 (1 egg delivered)
Skool Daze 12,320
Hypersports Overall score 203,163
Mark Musgrave, Redland, Bristol

Skool Daze 7450
Mugsy 72%
Chuckie Egg 271,300 on level 24
The Hobbit completed
Kung Fu Black belt (level 7)
Kokotoni Wilf completed
Mooncresta 29,450
Airwolf 2 Scientists
Danger Mouse in Double Trouble World saved 6 times
Steve Davis Snooker Break of 69
Booty 82 items of booty
Avalon Supreme Lore Seeker
Stian Alexander, Edinburgh, Scotland

Tapper 64,900 on easy
Wizard's Lair 119,280 (50%)
Jetpac 176,300
Underwurlde 32%
Knight Lore 78%; 12 charms
Skool Daze 30,510
Atic Atac 99% completed
Andrew Baker, Stourbridge

Bruce Lee Retrired at 400,000 with 6 lives
Kokotoni Wilf completed
Pinball Wizard 14,052
Danger Mouse in Double Trouble Saved the world three times
Full Throttle 1st at Silverstone
Match Point Won Semi—Finals
World Series Baseball Won 34—4 on easy
Gavin Burr, Warwick

Some very interesting high scores there, don't you think? And the snaps prove once more that the last thing you need to be to get yourself beheaded, is photogenic!

I, OF THE MASK

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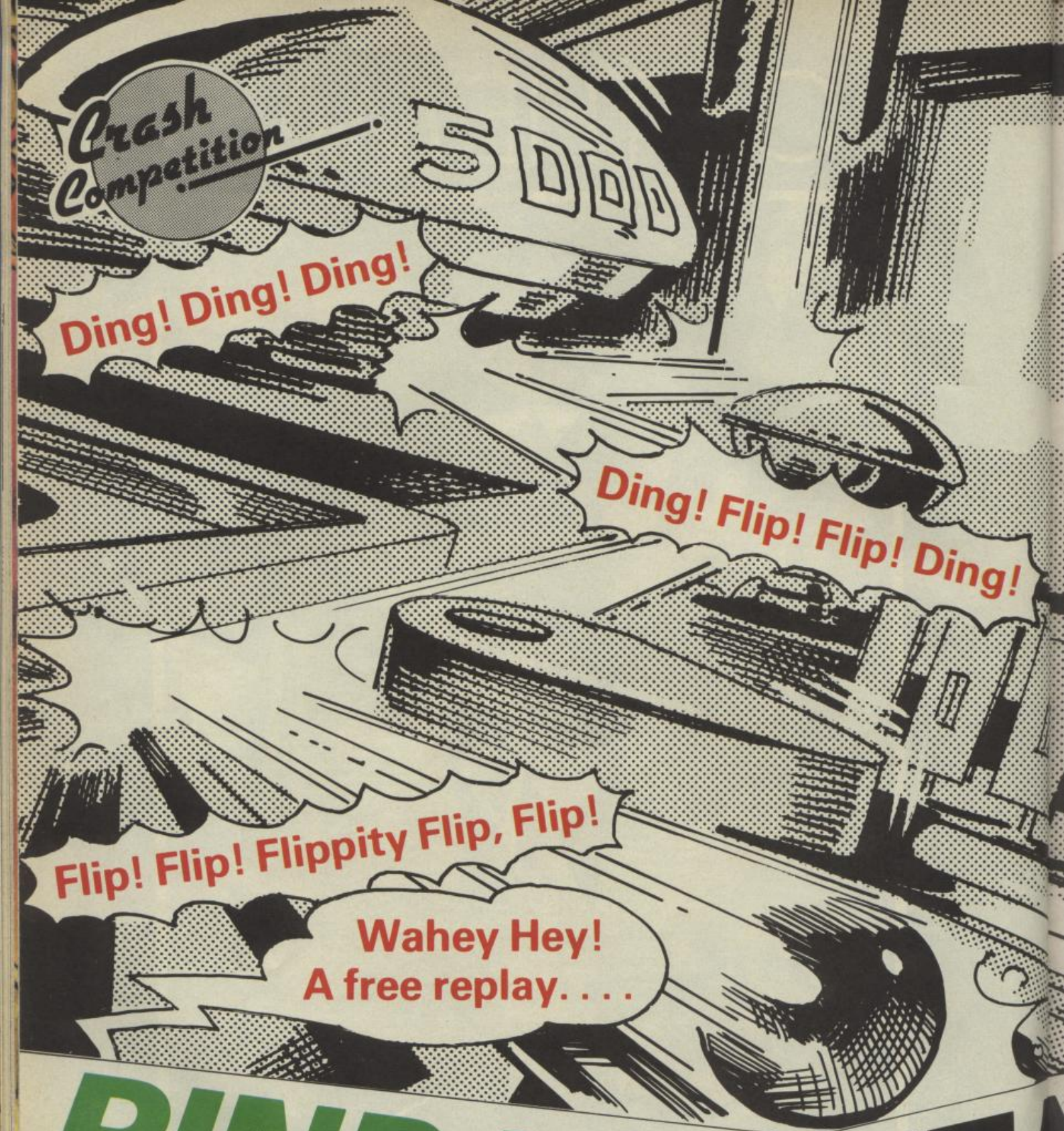


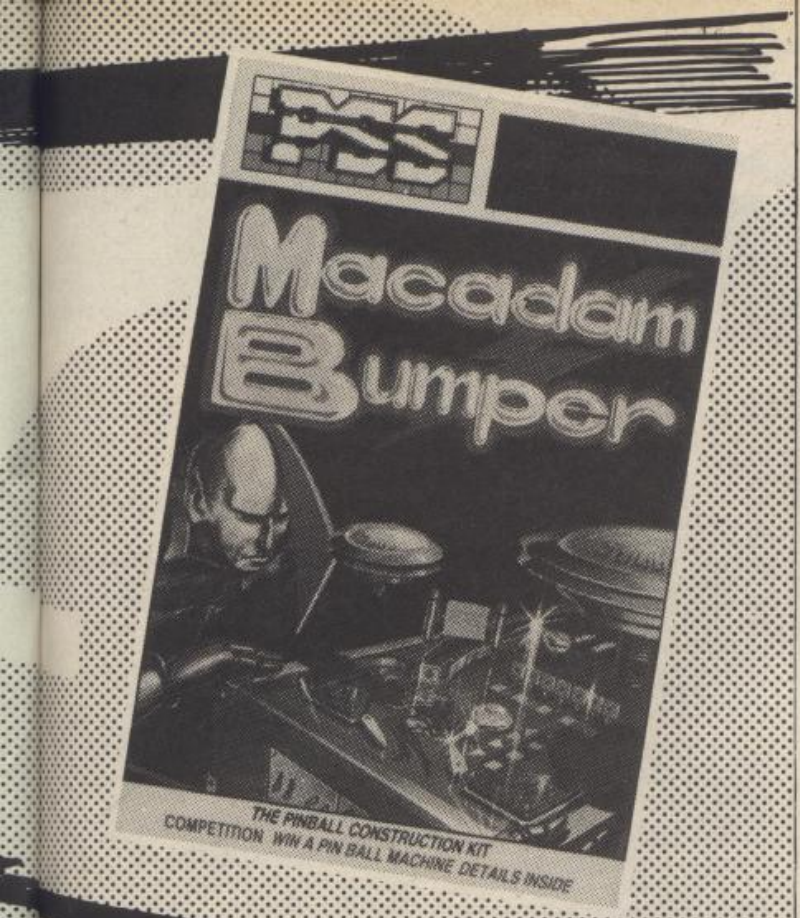
PINBALL WIZA

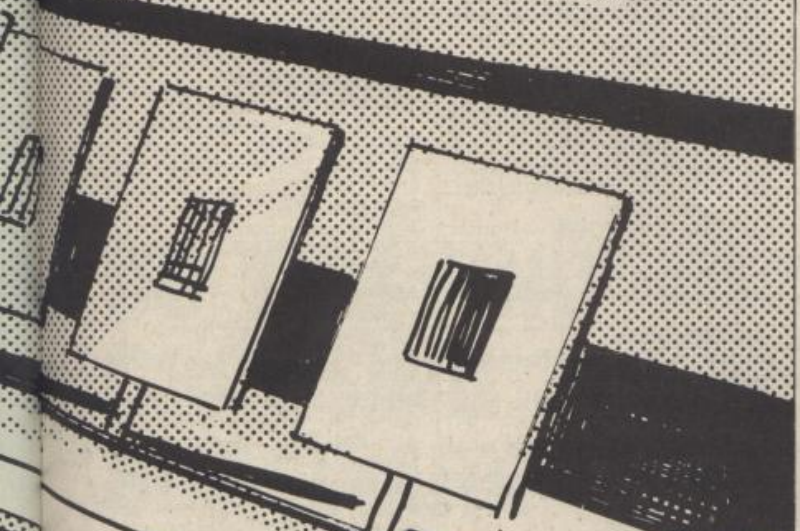
PSS have imported the whizzo pinball game *Macadam Bumper* from France, dug out their French Long Word Dictionary (3 Vols, Monsieur Mangramme) and translated the instructions into English.

To celebrate the French Connection, the ever friendly Gary Mays of PSS is offering some rather nifty pinball-related prizes in this CRASH Comp. (He's already sorted out a real pinball table for the winner of the 'design a pinball table' competition that lives on the *Macadam Bumper* inlay card.)

No less than five first prizes of videos of the film *Tommy* are on offer — don't despair, you can have either VHS or BETA if you win — with five runner-up prizes of albums of the soundtrack. Furthermore, 25 £5.00 vouchers redeemable against any PSS product purchased mail order direct from their Coventry HQ will be offered by way of consolation to those who don't get in the top ten.

The good news is, you don't





ARDRY

have to spend hours and hours in some greasy transport caff, polishing up your pinball technique to enter this competition. It's not a High Score Challenge or anything akward like that. Nooo. Nice and straightforward, five questions to do with the film *Tommy* which shouldn't be too much of a brain strain. So 'ere goes my little cabbages, on with ze questions, mes braves . . .

1) Where did Tommy find his first pinball machine? a) In a caff off the A1; b) in a pub; c) in a scrapyard; d) at the Youth Centre

2) Who played Tommy's stepfather in the film? a) Oliver Reed; b) John Le Mesurier; c) Dinsdale Langden; d) Michael Caine

3) Who sang *Pinball Wizard*? a) The Who; b) Elton John; c) Dave Clark; d) Adam Faith

4) Who played the lead character, Tommy? a) Robert Powell; b) Roger Daltrey; c) Keith Moon; d) Pete Townsend

5) Tiebreaker: Where did the Baked Beans come from?

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PLAYING TIPS

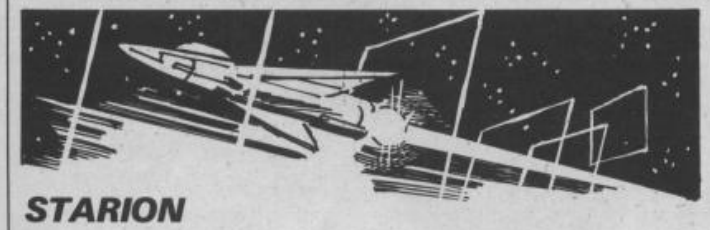
from ROBIN CANDY

Last month you may have noticed that there was a little mistake in the Playing Tips section, there was no Minitips section. Instead the Minitips were scattered all over the place. This was not my fault *(it never is -LM)* nor was it Art's fault (though the missing fab new logo was, will there be a nice new logo this month)? As yet the culprit has not owned up but I have my suspicions *(Who me? -GK) (Yes you the vile one who needs a scolding)*.

David Wood of Newick asks 'Why this sudden appearance of listings in Rob's pokes corner? Please bring back the old fashioned poke!' Sadly, David, you won't be seeing much more of the old fashioned poke because it is just not possible. Nowadays to be able to put a poke into a program you must first write a small program that by passes the security and the loader this is because almost all new releases use Hyperloads. So if getting your infinite lives program to work takes half an hour to type in don't blame me, blame the software houses! I for one would like to see the return to normal load.

By the way, I'd just like to say thank you to all those people who came up to speak to me at the Personal Computer World Show at Olympia — it's nice to be able to put faces to those who inult me in the Forum!

This month has seen some very promising releases. I look forward to playing *Marsport* which looks a lot more playable but yet more difficult than Gargoyle's previous release, *Dun Darach*. *Elite* also *Astro Clone*, look very good. So hopefully next month there will be a few tips on these fab games



STARION

Here is the final block of *Starion* **revealed courtesy of** Tim Dawson **of Farnham Common.**

BLOCK 3 GRID 1
AD 1909: WING — Bleriot puts channel under his
AD 1899: ELGAR — He varies an enigma
AD 1934: KNIVES — Hitler's long weapons in the night
AD 0032: FISH — Five for five thousand
AD 1967: OXYGEN — Too much in Apollo fire
AD 1977: AMIN — Ugandan mass murder
AD 1977: MULL — Winged wine of Kintire
AD 1614: ROMEO — Where for art thou
BC 0790: REMUS — Romulus' twin
GRID PASSWORD: FRAMEWORK

BLOCK 3 GRID 2
AD 1954: BANNISTER — Roger, smile upstairs in four minutes
AD 1939: RHESUS — Levine and Stetons monkey blood factor
AD 1982: HARRIER — 'Counted them all out' from Invincable
AD 1948: LP — Goldmark gives forty — five minutes
BC 0747: ICARUS — He flies discreetly on melting wings
AD 1938: AUSTRIA — Germany's new annexe
AD 1926: YOYO — Come — come to Donald Duncan's new toy
AD 1855: NIGHTINGALE — Hygenic Lady from Berkley Square to Crimea
AD 1959: TARMAC — Surface the M one
GRID PASSWORD: LABYRINTH

BLOCK 3 GRID 3
AD 1935: MONOPOLY — Exclusive board game is born
AD 1948: PROGRAM — Instructions first stored in Manchester mark one
AD 1927: SOUND — First thing about the Jazz singer
AD 1943: ENIGMA — Colossal code for the first computer
AD 1923: AUTOGIRO — Juan de la Cierva's C four flew
AD 1976: TROWEL — Help a Viking dig holes in Mars
AD 1825: LOCOMOTION — Everybody's doing it with George Stephenson
AD 1877: CYLINDER — Edison's sound medium
AD 1429: ORLEANS — Joan of Arc's relief
GRID PASSWORD: ECTOPLASM

BLOCK 3 GRID 4
AD 1947: YEAGER — Chuck Supersonic in Glamourous (sic) Glennis
AD 1877: EIGHTS — Dead hot university rowing crews
AD 1982: RINK — T and D's stage at Lake Placid
AD 1936: TELEVISION — Watch the BBC
AD 1953: DNA — Deoxyrybonucleic acid
BC 9999: EDEN — Adam and Eve's garden
AD 1865: ALICE — She adventures in Wonderland
AD 1851: SINGER — Choral first sewing machine
AD 1781: YORKTOWN — British surrender the war of independence here
GRID PASSWORD: YESTERDAY

BLOCK 3 GRID 5
AD 1861: GATLING — Name his machine gun
AD 1967: BARNARD — His first change of heat
AD 1665: TRIANGLE — Pascal's binomial shape
BC 0790: ROMULUS — Twin of Remus in Rome
AD 1927: LOUIS — Lindenbergh's Transatlantic saintly spirit
AD 1979: IRAN — Khomeini's country
AD 1931: EMPIRE — Tallest building in a state
BC 2905: MEMPHIS — Capital of Egypt, not Tennesse
AD 1909: NORTH — Peary's pole
GRID PASSWORD: TREMBLING

BLOCK 3 GRID 6
AD 1960: PSYCHO — Hitchcock's madman
AD 1942: CASABLANCA — 'Play it again Sam'
AD 1929: HOOVER — Damned good President
AD 1859: OIL — Crude discovery in Pensylvania
AD 1981: HELENS — Saintly mountain erupts
AD 1921: ORANGES — Prokofiev loves three
AD 1872: STANLEY — Meets 'Doctor Livingstone', I presume
AD 1949: COMET — Imploding Jet airliner
AD 1972: TERRORIST — Munich spoil sport
GRID PASSWORD: HOPSCOTCH

BLOCK 3 GRID 7
AD 1901: RAGTIME — Tatty beat in jazz
AD 1605: FAWKES — Guy with the gun powder
AD 1948: TRANSISTOR — Walter Britain's tiny amplifier
AD 1770: EQUATOR — Captain Cook crosses this line to Australia
AD 1280: VISA — Marco Polo's credit for entry permit
AD 1937: NYLON — Synthetic fibres from New York and London
AD 1634: OBERAMMERGAU — Passion plays begin here
AD 1928: AMBER — Missing traffic light
BC 9999: WHEEL — Fundamental invention
GRID PASSWORD: WAVEFRONT

BLOCK 3 GRID 8
AD 1839: OPIUM — Indian subject of Anglo—Chinese war
AD 1952: MOUSETRAP — Agatha's new play
AD 1816: ROSSINI — His barber is in Seville
AD 1883: LIBERTY — French statue for America
AD 0664: WHITBY — Celtic church vanishes at north coast synod
AD 1960: APARTHIED — Cause of the Sharpsville massacre
AD 1884: EGG — Faberge lays his first for the Csar
AD 1945: NUREMBERG — City of Nazi trials
AD 1875: WEBB — Captain swims the channel
GRID PASSWORD: LAWNMOWER

BLOCK 3 GRID 9
AD 1899: ALPHA — Rutherford's first ray
AD 0121: STONE — Build Hadrian's wall
AD 1536: MONK — Henry's dissolving victim
AD 1714: FARENHEIT — Gabriel's temperature scale
AD 1958: NAUTILUS — It's twenty thousand leagues under the sea
AD 1859: ORIGIN — Darwin's beginning
AD 1885: RABIES — Pasteur fights hydrophobia
AD 1926: ROCKET — Goddard's is liquid fuelled
AD 1974: TAPE — Watergate recording
GRID PASSWORD: TRANSFORM
BLOCK PASSWORD: TWELFTHLY
FINAL PASSWORD: AEMSTY (that is the anagram but you will have to work it out for yourselves)

DRAGONTORC

Many Dragontorcers out there seem to be getting confused when they get 'tunnel vision', you can only see Maroc and a bit of what surrounds him, this is NOT a bug. If only happens when either there is no light in a room (use the Light spell) or Maroc has been bitten by certain creatures (use heal then move out of that room or use light).

Now that you have destroyed the first crown of Dragontorc proceed to Dreamdowns. If the dwarves are bothering you then lead the elf into them and they will be killed alternatively they can be destroyed using the Warrior spell.

Look for the squirrel. Once you have got him, use him to search the leaves for you to reveal a stone and a torch. Now light the torch on the camp fire and take a bow to the elf. The elf in return gives you a nut. If you give this to the squirrel he will crack it open and reveal the key that is inside, take this. Now enter the ruins with the elf.

Inside the ruins open the chest with the key and take the snake symbol. Use the snake symbol to move the flagstone, take the Demon spell that lies underneath. Now go out of the ruins and use the snake symbol to move the flagstone on the woods to reveal an entrance. Go down the entrance with the snake symbol and the lit torch.

Go through the first door you meet and turn off the snake generator with the torch (place the torch on the snake symbol that is on the wall). Now kill any snakes that are still about with the snake symbol. Open any locked doors with the snake symbol and kill any snakes with the lit torch. Open the locked chest with the snake symbol (leave the torch on the floor just in case you get attacked by snakes. Take the crown symbol from the chest, if there is no crown but another snake symbol then put the two snake symbols together to make a crown symbol. Beware of the axe and fireball room it is advised that you use the Slow or Unseen spells as necessary. Search the tomb with the crown symbol to reveal a crown and a message. The message 'When 4 are gone smite anvil with stone' means use the crystal of antithought when four of the crowns are destroyed. Use the snake symbol on the other snake symbol to reveal the exit or use the Return spell. Place the crown on the anvil to destroy it.

With two crowns destroyed you should now travel to Trollstones. It is best to use the Warrior spell on the deadly yellow imps to kill them before trying to solve any of the puzzles. It is also helpful to have the lit torch and you must have the Demon spell

Search the leaves using the servant spell to get the Bane gem. If you catch the bird that flies around then you will get

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PLAYING TIPS

the message 'Set a thief'. Search the stump for the coin and put it in the water. Jump into the pool to go to Hellsmouth.

Hellsmouth is inhabited by bats that can be killed using the Missile spell and you can kill the snakes using the torch. Find the axe and use this to smash the eggs (place the torch on the floor to kill the snakes), now take the chest key. Look for the chest and open this with the key to get the crown symbol. Now here comes a tricky bit — place the crown symbol on the cursed key while avoiding the balls of red fire. Either Unseen or Slow can help here. Now take the key and use it to open the locked door. When the Demon appears use the Demon spell to destroy it — 'Set a thief to catch a thief'.

Take the crown. Kill the eyes with the bane and place the crown symbol on the stone to reveal the exit or use the return spell. Place the crown on the anvil to destroy it.

DYNAMITE DAN

For those of you who are having problems with the classic platform game Tony O' Brien of Merseyside rushes to your help.

When you have the 8 sticks of the Dynamite walk up to the safe door and you will notice that it starts to glow, now move back avoiding Dr Blitzen before the door explodes. To get the plans bounce on the trampoline and jump on to the laser that is just below them. When the laser shoots accross walk on on it until you are just below the plans and then jump up to get them.

Now you have to get out of the safe. To do this walk to the far end of the trampoline and make sure that you have walked so far that you are only balancing on the trampoline by one foot. After the laser has shot, bounce four times, avoiding the girl, and towards the door. You should now be free to head back to your airship and finish the game.

MINITIPS DEPT

If no one does any secretive 'Midnight Hacking' then this should all appear as one mini sub section instead of being strewn all over the place. Remember if you want to send in a mini tip then mark Minitips on the envelope it just helps make life easier for Aunty Aggie and her Mail order Minions and we woudln't want them getting angry would we?

HUNGRY HORACE

From Michael Page of Hull.

When collecting a bell move away once you have touched it. If you have done it right the bell will still be there and you will get 400 points. You can repeat this process as often as you wish.

THATS THE SPIRIT

From S Kennaugh of Widnes.

First collect the ashtray, the bone and the power pack. Now go to the dog and stand on the right hand side of the subway. Throw the bone to the dog and go and collect the gun. Connect the gun and power pack together. Now go and find a ghost. When you have found one position the ashtray beneath it. Now wait until the ghost is positioned above the ashtray. Now shoot. The ghost should fall and disappear into the ash tray, you get 10 points for each ghost caught. If you wish to pass the granny just swear.

POLE POSITION

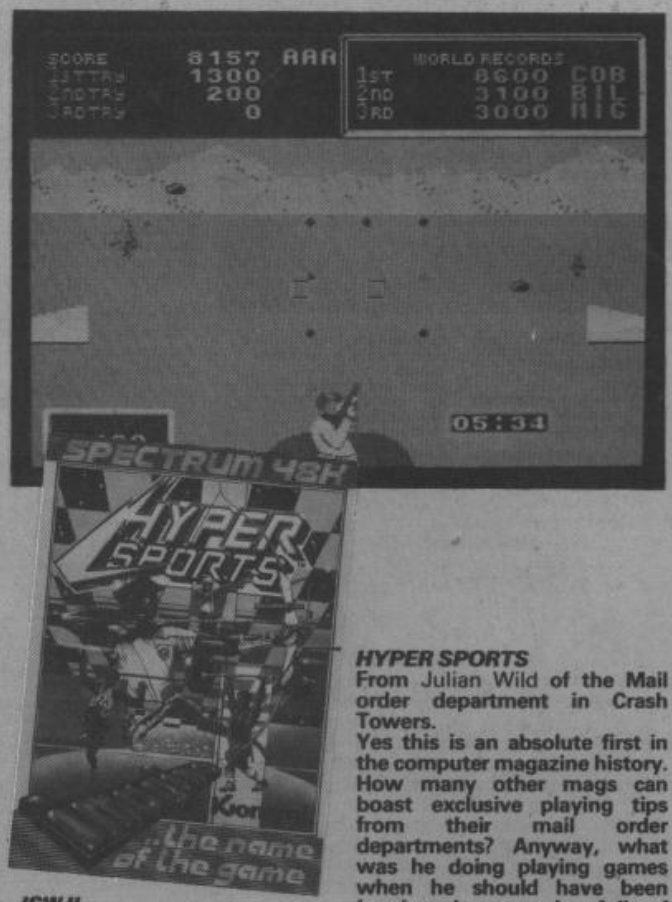
From James Burch of Bournemouth

When racing around tracks it is best to stay in the middle so that you don't get hit by other cars. Try to get a lap time of 56 seconds or less because you get a bigger bonus.

THE BIZ

From Kevin Gove of Barrington

Wait until *The Biz* has loaded and when it gets to the screen that says 'The Biz status in week 1' break into the program (this can be done using Caps and Break) and change around the variables. Band Tightness is the variable B. Stage Presence is variable Q. Visual Impact is variable O. Song Quality is Y. Fan Following is Sc. Drive Ambition is e. Star Rating is xf and Money is Te. It is a good idea to get a manager before fiddling with the program otherwise they tend to become a bit expensive.



JSW II

From Warren Pickett and Andrew Sutton of Mirfield

If you climb the 'Cold Store' be prepared for a shock, there is something very nasty flying around in the sewer above. Jumping off the top of the watch tower will take you into a new set of screens where Willy changes into a space man. Does anyone know where The Deserted Isle is?

FANTASTIC VOYAGE

From Dave Williams of Moreton

The pieces of the sub are in the following locations and must be collected in this order:

1st Mouth
2nd Intestine (look around carefully)
3rd Liver
4th Gall Bladder
5th Pancreas
6th Duodenal
7th Stomach (look around carefully)
8th Colon (hard to find)

If you are having problems destroying the growths etc then the white cells can do the job for you.

HYPER SPORTS

From Julian Wild of the Mail order department in Crash Towers.

Yes this is an absolute first in the computer magazine history. How many other mags can boast exclusive playing tips from their mail order departments? Anyway, what was he doing playing games when he should have been lugging huge sacks full of magazines all over the place?

When on the shooting always use the keyboard. When a skeet enters your sights press both the left and right keys at the SAME time. This means that you always hit the target and the sights do not get bigger and the skeets faster.

Julian has just rushed in excitedly with his latest tip for the Skeet shooting (apparently this isn't the time of month when he should be carrying sackloads of mags up and down the stairs). When you go to shoot the duck, or at least a couple of skeets earlier, only use one key because the sights get bigger and so make it easier to hit the duck.

HELICHOPPER

From Tony Beckwith of Firebird (should HE be telling me these cheats?)

Try the following words for the passwords in Helichopper:

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FOREVER
RESTART
CLEAR

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or how to be in two minds about paranoia

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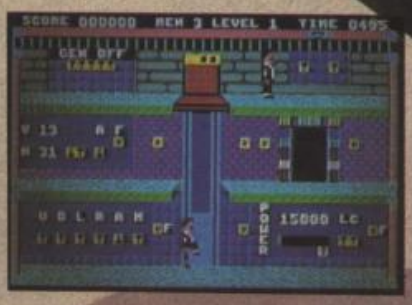

Alphonse T. Nurd needs help. His alter-ego has discovered the meaning of independence. If you can discover the secrets of sub-atomic particle separators and clean lifts, this is the game for you. The puzzle of a liftetime ... or two.

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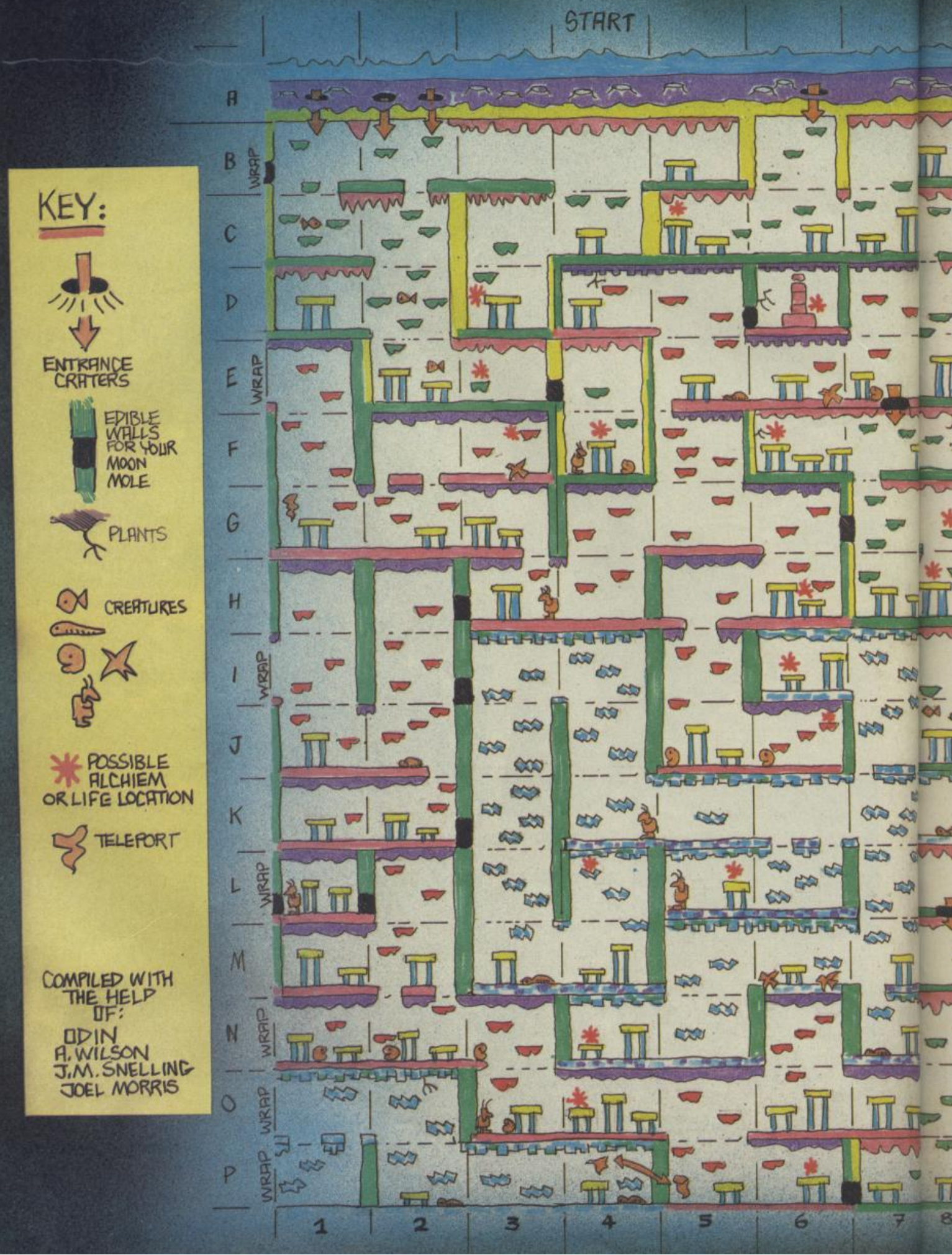

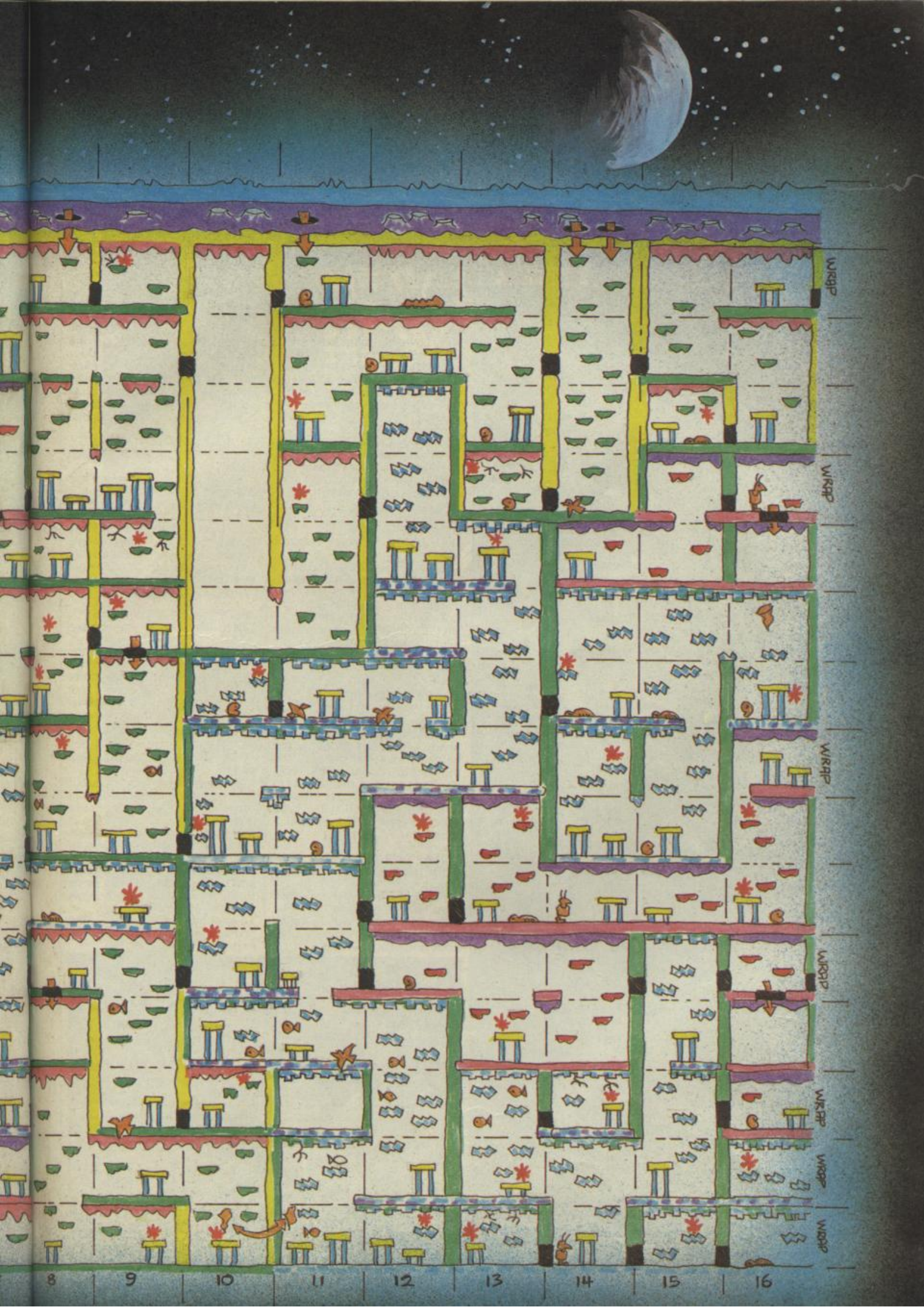
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PLAYING TIPS

POKES CORNER

Over the next couple of months I will be cutting down on the number of pokes that are to appear in each issue because I am saving them all up for a Grand Christmas Special Pokes Bonanza. So if you have any pokes, however humble and stupid they are, then send them in and provided that they haven't been printed anywhere else then I will publish them.

HYPERACTION

This program comes from Paul Stephenson, **one of the Pokes Comp winners and it gives you infinite lives. Have a look at Crashback to see how** *Hyperaction* **fared by today's standards. Just type in the listing and start the tape from the beginning. Don't worry if the game looks as if it isn't loading because the program ignores the loader.**

```
1 CLEAR 65535
5 PRINT AT 10,5; "START
HYPERACTION TAPE"
10 FOR F = 23296 TO 23332:
READ A: POKE F,A: NEXT F
20 DATA 17, 0, 27, 221, 33, 0, 64
30 DATA 62, 22, 55, 205, 86, 5
40 DATA 48, -15, 17, 192, 93
50 DATA 221, 33, 168, 97, 62
60 DATA 2, 55, 205, 86, 5
70 DATA 33, 0, 0, 34, 11, 0, 98
80 DATA 195, 82, 98
90 RANDOMIZE 23296
```

CYCLONE

This listing also comes from Paul Stephenson **and it provides infinite lives for** *Cyclone*. **Type in the listing, save it to tape for future use and start your** *Cyclone* **original from the start.**

```
1 REM CYCLONE POKES
10 PRINT AT 9,6; "START
CYCLONE TAPE"
20 FOR F = 23296 TO 23340:
READ A: POKE F,A: NEXT F
30 DATA 221, 33, 203, 92, 17, 66,
3
40 DATA 175, 214, 1, 8, 243, 205
50 DATA 108, 5, 48, 239, 62, 97
60 DATA 33, 40, 94, 17, 244, 247
70 DATA 1, 177, 1, 205, 250, 95
80 DATA 62, 50, 50, 147, 249, 33
90 DATA 160, 146, 34, 148, 249
100 DATA 195, 106, 249
110 RANDOMIZE USR 23296
```

STRANGELOOP

After an appeal from several readers here are some pokes that provide infinite lives for *Strangeloop* **as sent in by** Howard Grist. **Follow the same proceedure as detailed in the last 2 pokes.**

```
5 REM STRANGELOOP POKES
10 CLEAR 25599: FOR A = 23296
TO 23311: READ B: POKE A,B:
NEXT A: RANDOMIZE USR
23296
20 RANDOMIZE USR 64884:
POKE 63159, 0: POKE 63160, 0:
POKE 63161, 0:
30 CLEAR 64000: RANDOMIZE
USR 63137
40 DATA 85, 17, 198, 2, 221
50 DATA 33, 151, 252, 62, 255
60 DATA 205, 86, 5, 48, 241, 201
```

CODE NAME MAT

No infinite anything here but thanks to Howard Grist **the Myons' firepower no longer has any effect on the Centurion.**

```
5 REM CODE NAME MAT
POKES
10 FOR A = 65444 TO 65480:
READ B: POKE A,B: NEXT A
20 INK 7: RANDOMIZE USR
65444
30 DATA 49, 0, 0, 221, 33
40 DATA 0, 64, 17, 180, 191
50 DATA 62, 255, 55, 205, 86
60 DATA 5, 48, 241, 1, 0
70 DATA 27, 17, 1, 64, 33
80 DATA 0, 64, 237, 176, 62
90 DATA 201, 50, 254, 94, 195
100 DATA 101, 195
100 DATA 101, 195
```

FRANK BRUNO'S BOXING

Andy Lowe **of Stoke On Trent was the first person to officially complete** *Elite*'**s boxing blockbuster. Here he supplies hints on defeating boxers and their codes just in case you need any help.**

CANADIAN CRUSHER
The first boxer is very easy to beat just alternate between body and head punches and you should have him beaten in no time at all.

FLING LONG CHOP
CODE MM7IOF49B name used AND
He is the first boxer who uses a speciality move. Whenever a boxer attempts one always duck (Fling Long's speciality is a high kick). To defeat him just punch left then dodge left, punch right then dodge right and so on. With a bit of practice he is very easy to beat.

ANDRA PUNCHEREDOV
CODE B7XIOOLO5 name used AND
Andra's special move is a head butt, this is probably the hardest move of all the available moves to dodge. The best method to use to beat him is to punch right then duck. Repeat this process until you have knocked him to the ground 3 times.

TRIBAL TROUBLE
CODE FK5INOAO7 name used AND
As soon as Tribal crouches then duck or you will be flatened. The best way to defeat him is to alternate between right body and head punches.

FRENCHIE
CODE CE9IN9817 name used AND
Watch out for Frenchie's spinning fist punches, when the fist stops spinning then duck fast. To get the punches in lure Frenchie into putting his guard down by a quick right body punch and then get as many blows in to his head as possible.

RAVIOLI MAFIOSI
CODE IHCIN96A8 name used AND
Ravioli is probably the toughest boxer of the eight, it takes a lot of practice before you can defeat him. The best tactics to use are to punch alternatively to the head and then dodge. When Ravioli tries his speciality then dodge and try to get a right head punch in.

ANTIPODEAN ANDY
CODE ML6ION4B6 name used AND
He is probably one of the easiest boxers to overcome. Just keep throwing in those right head punches (not forgetting to duck his speciality) and after a while you will win.

PETER PERFECT
CODE BFAINN2L5 name used AND
Pete hasn't got a speciality but he is so good that he doesn't really need one! When Pete's guard is up then lure it down in the same way used to defeat Frenchie but Pete will rarely let your KO punches land home. To hit him with a KO punch (should you be fortunate to get as far as that) hit him with a body blow and then use the KO punch.
To see the final effect enter the code CGAINA5CA and use the name AND.

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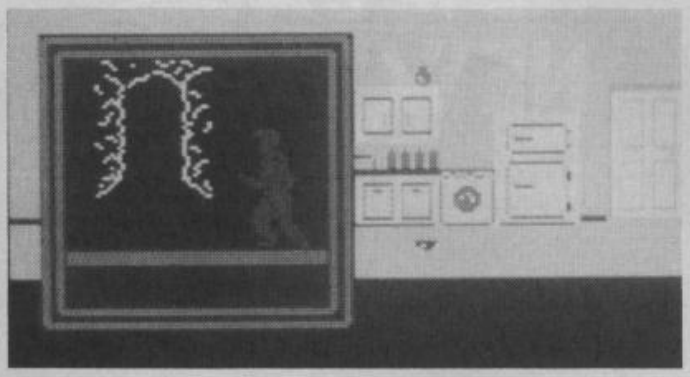
CBM 64

PLAYING TIPS

FRANKIE

Frankie **has kept me busy for a while, in fact way into the early hours of the morning but I have a confession to make, it was not the Spectrum version that I have been playing but I have now repented (it was all Lloyd 'Defector' Mangram's fault, he introduced me to the fab music that the CBM 64 version plays and I couldn't restrain myself, don't worry I washed my hands when I had finished).**

Luckily Howard Walker **of Redditch has come to the rescue with a load of hints for the Spectrum version.**



THE MURDER MYSTERY
The body of the victim is always at the end of a street. Go into a house and if it has a money bag on a table between doors then the body is in the room on the right.

Mr Straight is always the killer. Ignore the message that says 'Mrs Straight has a son in the RAF' because this was probably from a previous marriage.

OBJECTS
The wedding ring will stop pleasure point drain in the War Room and the Cybernetic Breakout Rooms. It also pushes up your faith points when you wear it in either of these rooms.

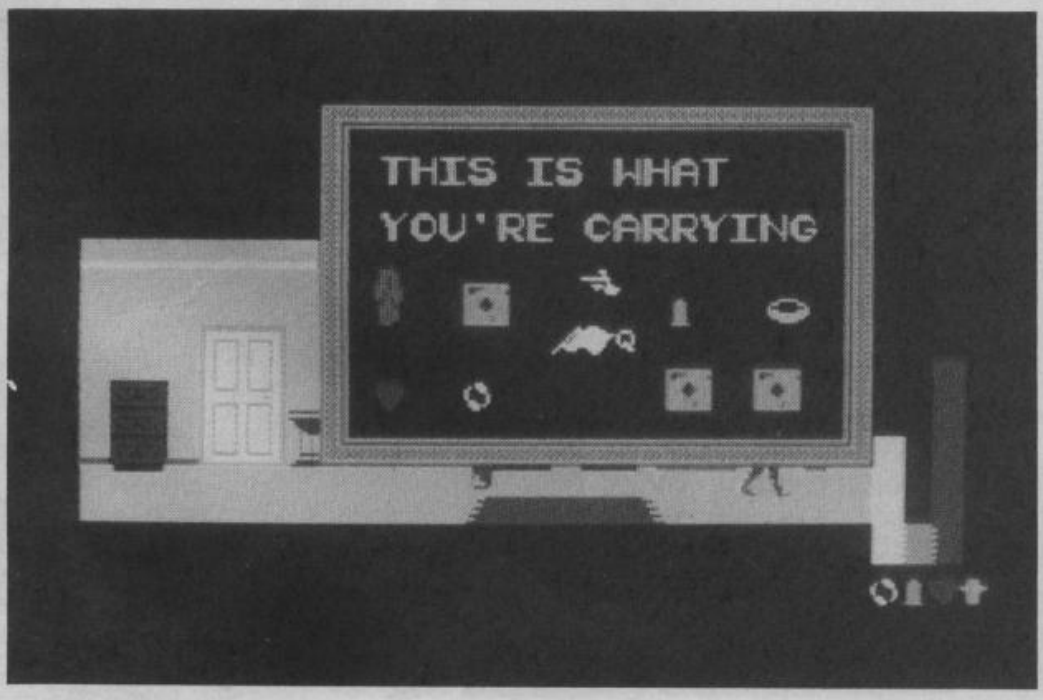
The flak jacket will protect you from the bullets on the ZTT Room and with it on you can break down the barrier much quicker.

The security pass and the floppy disk will help you complete the Terminal Room but beware you may need more than one disk to boot information into the computer. If it does boot successfully then use the security pass to gain access to the other terminals. Touch terminal one to go into the Shooting Gallery, touch terminal two to play Raid Over Merseyside and touch terminal three to play Cybernetic Breakout.

THE CORRIDORS OF POWER
The important thing to remember is that you are not in a conventional maze. The doors to the rooms are normally at the top end of the corridors. You can only depart from the corridors of power if you are hit by a fireball or you enter a room.

THE WAR ROOM
When you enter this room move over to the far right. As soon as the symbols appear shoot at them. The first time you hit a symbol which you haven't hit before then the pleasure bar relevant to that symbol goes up (eg if you were to hit a cross then your faith bar would increase). You cannot get the word BANG! by shooting symbols in this room.

GENERAL TIPS
Touch everything and open all the cupboards, fridges etc. It is best to always have at least one wedding ring and one pleasure pill with you all the time.



DUN DARACH

This month's edition of Playing tips for *Dun Darach* **gives you the rest of the solution needed to complete the game. In the next couple of month's I will hopefully be printing hints for Gargoyle's next epic game,** *Marsport* **(which looks absolutely wonderful and a lot harder to complete). The hints printed here for** *Dun Darach* **were compiled with help mainly from** Simon Malham **of Canterbury and a cast of thousands.**

With any object, the scroll (from Skar), and the D key go to the castle. Open the first locked door with the D key and go through into a room with 3 revolving wheels (a combination lock). On one of the tables is a script with the clue 3ks 4keys, WITH LOVE. This is a clue to the combination of the lock. If you give the 3 thieves a philtre each you get scripts with messages on them, take the first letter of each of these messages and you end up with DPE, this is the combination to the locked door.

Keeping the scroll (the one from Skar) drop your other objects on the tables so as to stop the wheels at DPE. Now go through the door with the scroll. You will now be in a room with a message 8 ROWS AND BAR FOR KEY FIND SKAR and 8 other doors. Only one of the doors will lead to another row (row B) the rest take you outside of that room. To decide which door to go through you must solve the clue 225, which means 2 to the power of 25. This gives you the answer 33554432. Counting from the left, go through the third door into the next row and then through the third door from the left again and so on until you have been through all 8 rows. Now use the scroll to unlock the locked door. Go through this and you will be in another room with a combination lock. Drop objects on the tables to stop the combination at OAK. Now go through the locked door with the L key which is lying just outside the locked door and offer Loeg the L key. He will be freed and will give you another L key in exchange. To finish the game go to Claw Lane and open the locked door which leads from Dun Darach and you will see the marvellous end effect.**

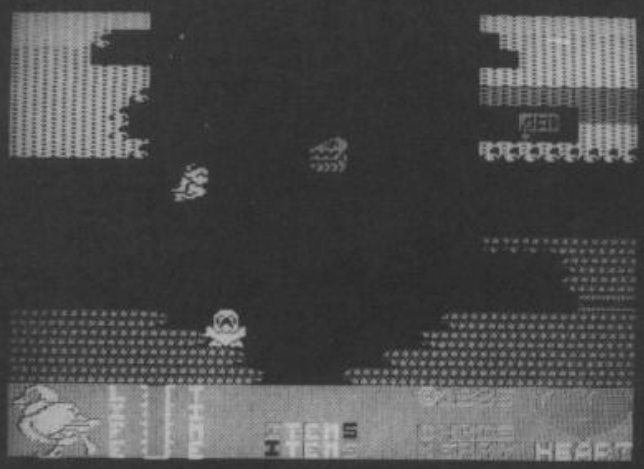
Some of the clues given in *Dun Darach* **are a bit obscure but if you are still mystified as to**

METABOLIS

Gremlin Graphic's **recent hit has attracted tips from** Jeremy Smith **of Sheffield.**

Each item that you collect has a specific purpose. The Licence to kill is in fact a boomerang, it can be found in the caves above the start and looks like a skull and crossbones.

For anyone wanting to get past the punches they can be disabled by the the signs that say 15. Pills stop your heart from beating but they only work for a short while. The syringes have the power to make you immune to the Kremins. When you reach the serum room do not be surprised if you are transported to a different part of the maze, only one serum turns you into a man the other three transport you elsewhere.



their meaning then read on.

ART IN ORDER — Go round all the deposit rooms writing down their numbers and the letter on the wall inside the building. Once you have done this then write down the numbers with their corresponding letters and a message will evolve, BY ALCHEMIST COUNTER PT IS KEY. This refers to an invisible door that is by the Alchemist's counter, it can be unlocked with Platinum. Inside is the shield Parthol.

RATS ARE VEIN — this refers to the statue of the rat needed to free Teth. In the original version of *Dun Darach* **(there are two) there was a mirror but this was changed to a pearl to avoid confusion.**

SKARS A PEARL — this is refering to the fact that the pearl can be traded with Skar.

GODS SEE ALL — this refers to the Telestone.

That seems to be it for this month. Sorry about the lack of pokes but I as I said, I am saving them up for Christmas. When sending in Playing tips make sure it says 'Crash Playing Tips' on the envelope because now that there are 3 magazines in Crash Towers, there are Amstrad aliens as well as Commodore cronies crawling all around the office. I now have to fight standing battles about whether I'm keeping my (meagre) desk or not but at least I have got a chair with built in Quadraphonic stereo speakers and a digital clock, ok so that isn't exactly correct but at least it has got a back and it revolves. Right that is enough of the outro. Send all your tips etc to this address:
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DESIGN DESIGN, PART THE SECOND

In which the true authorship of the Design Design auto-profile becomes perfectly clear — and we learn that Graham Stafford is good at going for the milk.....

The time: 2:11 am, 26th August 1985; the place: Graham's bedroom. The Design Design card sharps are gathered around the table when.....
Si: 'Hey, what time is it guys?'
Simon: 'A bit after two, why?'
Si: 'It's just struck me that Graham and I have an article to write for Crash, and only eight hours to do it!'
Graham (*peering past a pair of queens*): 'Yeah, tell you what, make this the last hand, and if you make a start Si, I'll run this lot into town and try and find some milk!'

So here I am, abandoned yet again, with only Graham's word processor to keep me company, and a nasty feeling about what Graeme (CRASH) is going to say to me if I don't write this article. So Ladies and Gentlemen, pin back your ears, roll up your trouser legs and prepare for the latest installment in Crash's new soap opera.

The past few weeks have seen much frantic activity, centered mainly in and around the board room (Junction Inn) as we all sat down and designed the next two games. This process involves everybody at Design Design sitting round a couple of tables, pontificating at great length (or, as Wook puts it, 'Going on'), waving bits of paper covered in strange sketches in the air, and getting strange looks from the locals. We did however actually manage to get *Forbidden Planet* and something currently titled *Graham's Game*, defined to the point where Graham and Simon can start writing with some idea of what they're trying to do.

Mind you, it wasn't all roses and smiling faces. After one of these meetings, Simon went off in a fit of depression, complaining gloomily that there was no way he could get *Forbidden Planet*'s graphics to match *Dark Star*'s 50 frames per second, if we all kept insisting on having animated clouds in the sky. He is not alone. Stuart, the guy who did the *On The Run* graphics, was last seen trudging off back to Cheltenham with a look of desperation on his face. He had just been subjected to the preliminary spec of *Graham's Game*.

And thus was the grand Scheme Of Things For Christmas drawn up. Graham meanwhile finished the monumental task of putting *On The Run* on the Amstrad, and very pretty it is too. For once I think all you Spectrum owners out there have lost out, however a CBM 64 version is not planned. *On The Run* also makes some great noises in Amstrad guise. I helped Graham with these, but not enough to be blamed for it! Still, all in all Mr Stafford did a very credible job, and all in three weeks! We went over to Leeds to master said proggy last Friday, a lovely drive in the summer torrential rain!

Simon, on the other hand, has been putting the finishing touches to the filing system on his new computer, hired to replace Basil. Basil, Simon's mainstay in times of stress, has been thrown across the room once too often and has now been reduced to finding all the prime numbers up to a million out of sheer boredom. Basil, by the way, was retired from active service due to a few fits, dropped bits and random resets. Now the new system is approaching completion, Basil is working perfectly again, and is currently hunting for the eighth perfect number. The new system (currently un-named and there's a signed copy of *Dark Star* for anyone who can do this) is bigger, faster and has a BOX!!!!. It has provided Simon with such niceties as one megabyte source files, multi tasking and a very nice display. All of which will probably be needed in the creation of *Forbidden Planet*.

On the subject of the forthcoming programs, I shall reveal as much as the security minded programmers will let me. *Graham's Game* is to be set way way off in the future. The idea is an extrapolation of today's technology. Consider a society where everyone sits at home and works at a computer terminal. Central government would become a large computer based in the Houses of Parliament linking all MPs and Whitehall bods together, enabling them to 'work' in comfort from their homes. We took this idea further, to the point where London is no longer a city but a vast computing complex and its supporting facilities. One day some Whitehallesque bright spark manages to set a program running to analyse the way the country is run, and see if it could be performed more efficiently by the computer alone. Needless to say, the computer decides it can do a better job, and said bright spark sets the Mega-machine (probably one of Simon's creations) in motion.

And so the country is taken over by a collection of jumped up pocket calculators. Your job will be to persuade the Mega-machine that humans know best and wrest control back from it. To assist you in overcoming this electronic ego, there will be a robotic K9-esque dog (provisionally named KY). This 'creature' will be able to perform various feats of electronic wizardry, and rescue you should you fall prey to one of the many traps scattered about the complex.

As to what the actual screen will show when you are playing the game, to quote Graham, 'I want lots of trogging about and icons!' so expect multiple screens, lateral thinking problems, more of Stuart's graphics and the irrepressible KY. Graham has mentioned something about masking, though we don't know if he's on about attacking people in Birmingham, or something flash done with graphics!

And so on to the Forbidden Program. The Image by Suggestion fast graphics developed for *Dark Star* will return with a lot more game bolted on. The scenario is the post *Dark Star* galaxy: the revolution which you headed managed to free the galaxy from the Evil Lord's repression, but the planet on which he developed all his military hardware remains undefeated. It remains a threat to the newly established Federation, and is ready to launch a second bid for galactic supremacy at any time. Your task is to find a way to destroy this planet given the resources of a galaxy still recovering from a war. There will be many ways of attaining this goal, strategy again playing a key part in this part of the game. There is also a time factor, the longer you spend refining your forces and developing a space fighter capable of taking on the Forbidden Planet's defences, the more likely is the launch of an attack from the Evil Lord's planet.

Assuming you get to the Forbidden Planet before it gets to you, (It's already got to Simon!) the forces of the Evil Lord will be found dispersed around the planet's surface. Raids on these will delay the impending attack, but to prevent it, you must destroy the planet's ability to develop its advanced weaponry. The development hangars are located deep within the planet and will not be easy to get at. Should you actually manage to complete the game there will be another program on the tape to keep you amused. Que? SPECTACLE 2! (Simon has just peered morosely over my shoulder and announced 'I think you're being very optimistic.' This is the sort of encouraging comment one can expect from a programmer!).

For those of you who still haven't seen SPECTACLE, and there's a few of you out there judging from the number of phone calls we've been getting, the passwords are:

EVERYONE'S A NERVOUS WRECK

Type that in at your peril.

Well that's it, another masterpiece completed. My thanks to Graham who has sat faithfully by my side, doing a very good impersonation of a spell-check program. I shall close now and go and argue about whose car we take down to CRASH (Here we go, the old debate about which Astra's got the better gearbox for the Ludlow roads!) and who pays for the petrol. I wonder if I can con Graham into making some coffee at this point.
'Hey, Graham.....'

Cocky as usual, DESIGN DESIGN dictate the terms for the return of Poddy, Jeremy's dog. Rotten dognappers — don't they know there's a law against it?

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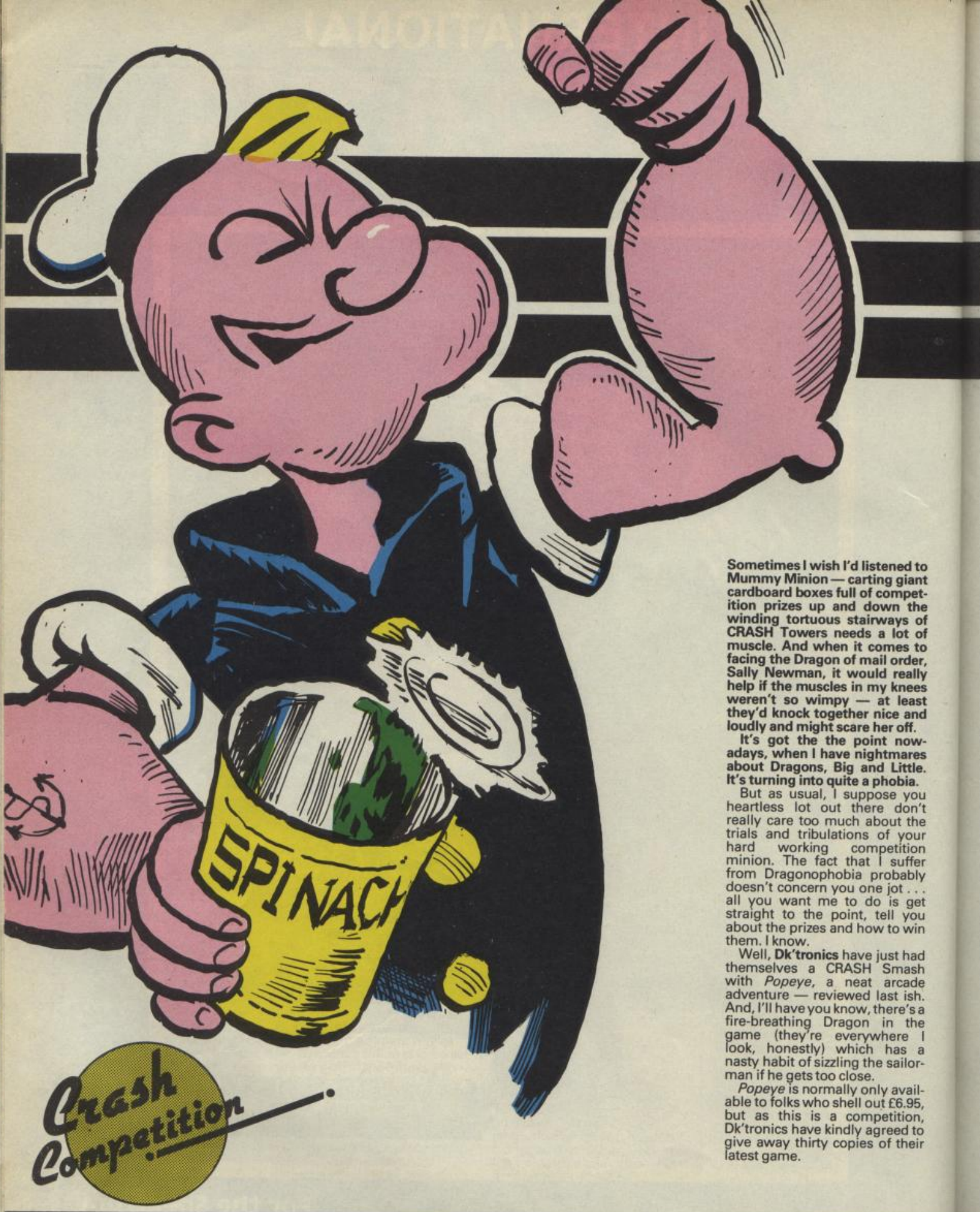


Sometimes I wish I'd listened to Mummy Minion — carting giant cardboard boxes full of competition prizes up and down the winding tortuous stairways of CRASH Towers needs a lot of muscle. And when it comes to facing the Dragon of mail order, Sally Newman, it would really help if the muscles in my knees weren't so wimpy — at least they'd knock together nice and loudly and might scare her off.

It's got the the point nowadays, when I have nightmares about Dragons, Big and Little. It's turning into quite a phobia.

But as usual, I suppose you heartless lot out there don't really care too much about the trials and tribulations of your hard working competition minion. The fact that I suffer from Dragonophobia probably doesn't concern you one jot . . . all you want me to do is get straight to the point, tell you about the prizes and how to win them. I know.

Well, **Dk'tronics** have just had themselves a CRASH Smash with *Popeye*, a neat arcade adventure — reviewed last ish. And, I'll have you know, there's a fire-breathing Dragon in the game (they're everywhere I look, honestly) which has a nasty habit of sizzling the sailorman if he gets too close.

Popeye is normally only available to folks who shell out £6.95, but as this is a competition, Dk'tronics have kindly agreed to give away thirty copies of their latest game.

Popeye's so tough! My mum kept telling me that if I ate up my greens, I'd end up big and strong like Popeye. It wasn't that I didn't fancy having forearms like treetrunks — bound to wow the girls. It's just that the kind of girl ol' Spinach Breath attracted — personified by Olive Oyl — simply wasn't my type of gal.

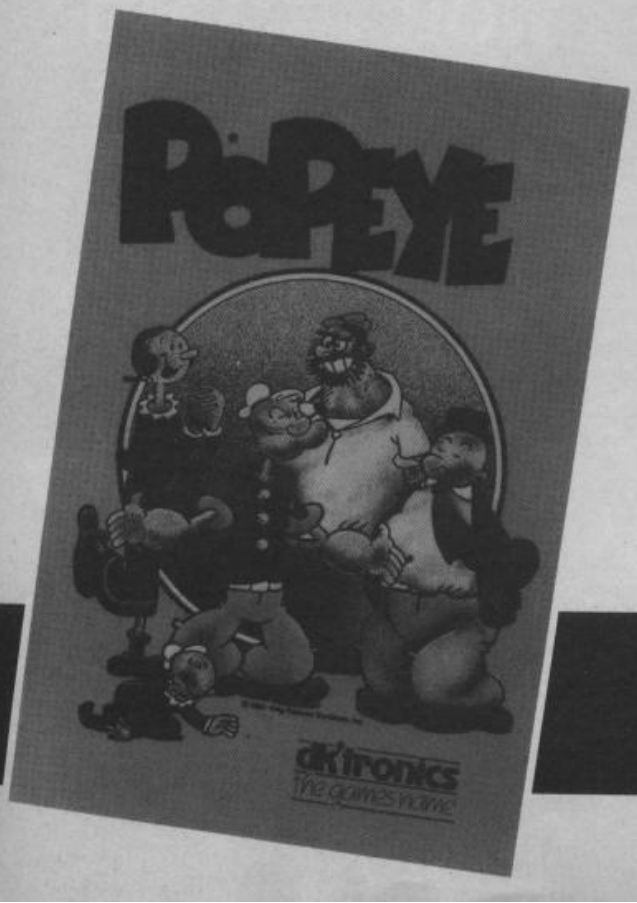
POPEYE THE SAILORMAN I YAM

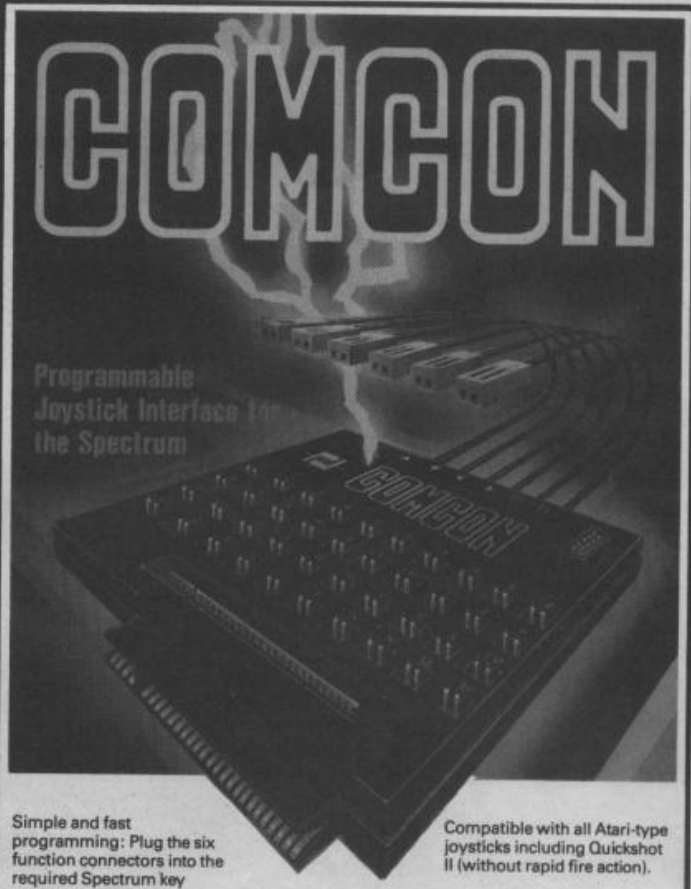
And there's more. First three winners of the Dk'comp will also receive a piece of hardware to add to the back of their Spectrum. A Three Channel Sound Synthesiser no less, which allows you to get some delightful tunelets out of your computer. These units normally sell for around the £30 mark, but if you need any further encouragement to enter the official Popeye competition you can catch a review of the Sound Synth in the July issue.

WHAT DO I DO TO ENTER THIS FABEROONIE COMPETITION? I hear you cry **ANYTHING BUT EAT SPINACH**. . . . Rest assured, folks, there's no need to stock up on greenchomp. You can try and help your friendly, faithful, Dragon-fearing minion overcome his phobia by drawing a dragon. (By the time I've worn the elbows out of yet another shirt sifting through your entries I'll be immune to the effects of dragons . . . . I hope.)

Fire-breathing monsters, or friendly little fellows, slimy scaled reptilian nasties or cute and cuddly dragonlets, funny dragons, comic dragons, Baby Dragons..... it's entirely up to you, dear reader, and your artistic talent. What we want is a pretty drawing, painting or photograph (photograph!!!) of a dragon. Best three dragon--drawers pick up *Popeye* the game and a **Dk'tronics** Sound Synth unit, and the next twenty seven entrants in order of merit will have to make do with a quiet Spectrum and just enjoy playing the game.

What you doing, dragon you feet? Get a move on. You've only got until 24th October to get that dragon drawn. Send it to AARGH! IT'S THE DRAGON, PO Box 10, Ludlow, Shropshire, SY8 1DB. Get going, get going, get going.





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Rosetta McLeod

COMPUTERS AS COMMUNICATORS . . .

How do you feel about a computer program for babies? I must admit that when the tape Turntaking arrived on my desk, with its claim to be 'simple enough for babies', my initial reaction was one of horror!

The picture came into my mind of helpless babies propped up in front of a TV Screen to amuse themselves with the game while harrassed parents got on with the chores, or snatched the opportunity to put their feet up for ten minutes. But this, of course, is not what it's all about. No matter what sort of educational programs we're talking about — whether it's ones like this for the very young child, or an exam revision program for older teenagers — working with the computer should not be seen as a solitary activity.

Yet many people still look at micros as being useful only in a one-child-one computer situation, where the child is assumed to be taught by the computer which is taking the place of an adult instructor. I know there are some educational programs (which have been reviewed in Crash Course), which are marketed on the fact that they can be used by children without any adult supervision whatsoever. No parent, though, who wishes to do the best for his or her child, should be happy to delegate the responsibility for home education to the computer.

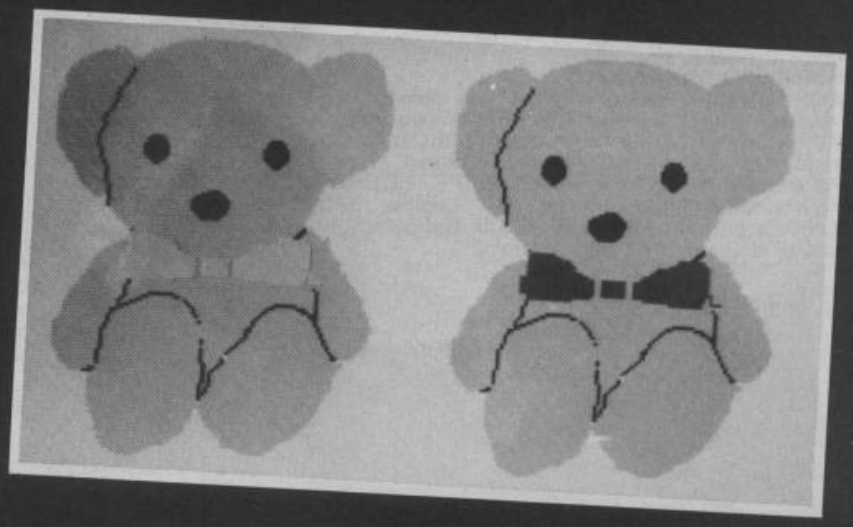
When the television became a common piece of furniture in the home, it was criticised for destroying family life. 'Families don't talk any more', became the cry. 'Everyone just sits impassively in front of the screen. The only discussion that takes place is when there is a disagreement over which programme to watch.' Now that a vast number of homes possess micros, modern technology has been blamed for being the ultimate destroyer of any interaction between parents and their children.

I believe, however, that used correctly the computer can increase communication between children and adults. The best home computer education programs are those which encourage the parent to work alongside the child, helping and directing progress. This is not to say that the child must never be left alone with the computer: as the notes for the Turntaking program say, 'If you are busy you will be able to leave children to play with the program themselves and they can tell you about it when you come to see how they are getting on . . .'.

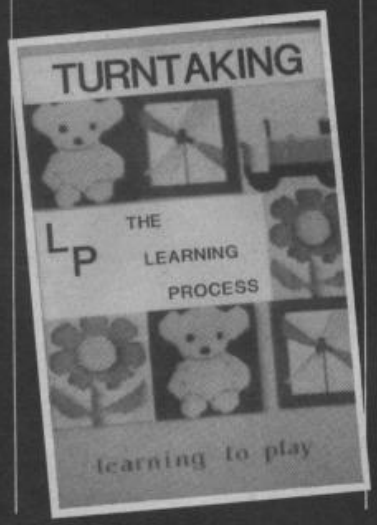
It's this 'telling about it' process which is so important. Let's start thinking about computers as an aid to communication for a change!

TURNTAKING

Producer: The Learning Process
Memory required: **48K**
Retail price: **£5.95**
Age range: **babies and toddlers**



Turntaking is the first program I have come across specifically aimed at babies and toddlers, but how old is a baby? The notes which accompany the tape tell us about the reaction of an eighteen-month old child, who realised the connection between pressing the keys and the image which appeared on the screen. I was interested to see if the program would appeal to even younger babies, and so I tried it out with thirteen-month old twins, Andrew and Gavin.



When the tape is loaded, the player can select the game required from a pictorial menu — obviously, for such young players, the printed word would be inappropriate. The easiest of the six options is *Building Bricks*, where the next brick is displayed each time a key is pressed — or if the child just watches, the next brick will appear after a short period of time without a keypress. The twins enjoyed seeing the colourful bricks appearing on the screen, though initially they did not grasp that they could use the keyboard to control the action. After a while, however, young as they are, they got the idea, but only when **one** key was selected for them to depress.

The attention span of very young children is obviously extremely limited, but the variety of games on the tape kept the twins interested for quite a time. The *Grow a Flower* game seemed to appeal to them, especially when the head of the flower began to appear on the stem, and the *Engine* game was also popular as the engine is seen to move across the screen when a key is depressed.

The twins' parents certainly felt that the program would be very useful to support the children's learning, and that it would help older children learn to make choices, to take turns in playing a game and to control events. The only real criticism they had was that sound could have been used to even greater effect in the games.

The ideal situation for using the program would be to have it set up so the child could leave it and return to it at will, with, of course, an adult present to support the learning activities.

COMMENTS

Control keys: any key can be pressed
Keyboard play: very responsive
Use of colour: bright and attractive
Graphics: simple but eye-catching
General rating: a well-designed program, with enough variety to hold a child's attention. Parents should enjoy watching their babies reactions!

NURSERY RHYMES

Producer: Softlee Systems
Memory required: 48K
Retail price: **£2.50 (connection lead £2.00)**
Age range: **pre-school and early primary children**

This latest offering from **Softlee Systems** is another of the SEE HEAR programs which I have been very impressed with. The tape is loaded using stereo equipment, and the idea is that the child listens to a nursery rhyme being read out aloud while watching the text on the screen, with each word being highlighted as it is read.

And that's all it is. No graphics. No gimmicks. Just a variety of rhymes, including *Jack and Jill*, *There Was a Crooked Man*, *Three Blind Mice*, and *Wee Willie Winkie*. Despite its deceptive simplicity, the program can be extremely useful both in the home and in primary schools. I tried it out with Nicholas, loading the tape on a stereo cassette player, and letting him listen through headphones. He loved it, and automatically joined in with the recitation.

The tape can also be used with a group or whole class of children — you just use a speaker lead which plugs into the right hand channel socket at the rear of your amplifier. The teacher would find the program of particular use in assisting class recitation or singing, and also as a stimulus to be used with early reading books. As Tony Lee of Softlee Systems told me: 'These storybooks are somewhat confusing for early readers, because the accompanying tapes merely indicate with a tone when to turn over a page, and the child may be sitting uncomprehending with a jumble of words.'

With Softlee's method of hightlighting each word as the child hears it, attention is focussed quite easily onto the relevant word. Certainly, the infant teachers who tried out the program for me felt that it would be a very useful teaching aid — the only problem might be that not all schools possess the necessary stereo equipment to play it on. For individual use, though, the tape can be played on personal stereos.

COMMENTS

Control keys: once the program is loaded (it automatically adjusts itself to the speed of the player used) no further commands are needed. All the child has to do is listen and watch
Graphics: none. The text is clearly displayed in reasonably large print
General rating: a very useful teaching aid which makes no attempt to use gimmicks to capture the child's attention

THE SUNFLOWER NUMBER SHOW

Producer: MacMillan
Memory required: **48K**
Retail price: **£5.95**
Age range: **all ages**

This electronics sums game is, I suppose, an attempt to make arithmetic more enjoyable, but it really is not too far removed from the drill and practice routines which no longer assume such an important role in the school curriculum. This package makes the mistake of trying to be all things to all people — we are told that it is 'a superb mental arithmetic challenge for all ages', that there is 'a vast amount of game settings', and that there are 'over 2,000 possible options'. Admittedly, the program is extremely flexible, but all it is doing is giving practice in using two numbers to create a third for no obvious reason.

In the first game, *Sunflower* the player has to answer the sums correctly so that the sunflower will grow. If the correct answer is input, a bird flies off and the player is rewarded with a 'Well done'. If the player answers incorrectly the deadly weevil moves closer to the sunflower. The next game uses a similar format, except this time the right answer causes a shower cloud to move across the sky to a point where is waters the roses. In spite of the number of options available, this is really a very limited kind of program since it can only be used with one child at a time in order to reinforce work which has already been taught. Neither is the aim of the game sufficiently exciting or interesting to motivate children to produce the correct answers, or strong enough to hold their attention for very long. As an attempt to make sums more enjoyable, I'm afraid the program is a dismal failure.

COMMENTS

Control keys: number keys only, followed by ENTER
Keyboard play: keys must be pressed fairly slowly and deliberately
Use of colour: quite effective
Graphics: dull and uninspired
General rating: this program fails to make much use of the potential of the micro as a teaching aid, and does not help the player towards a concept of number

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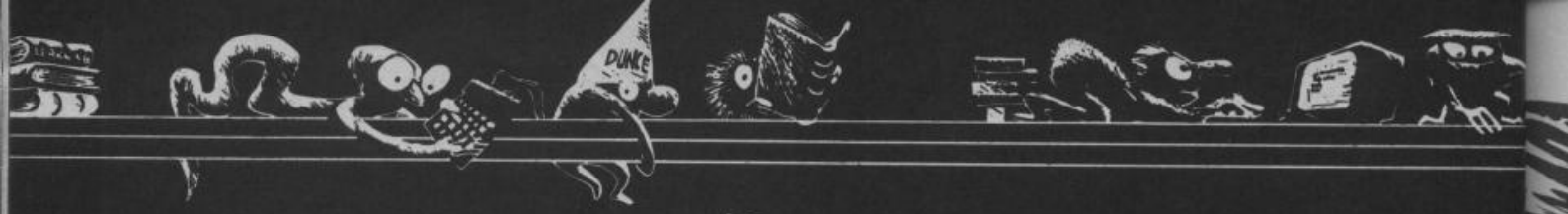
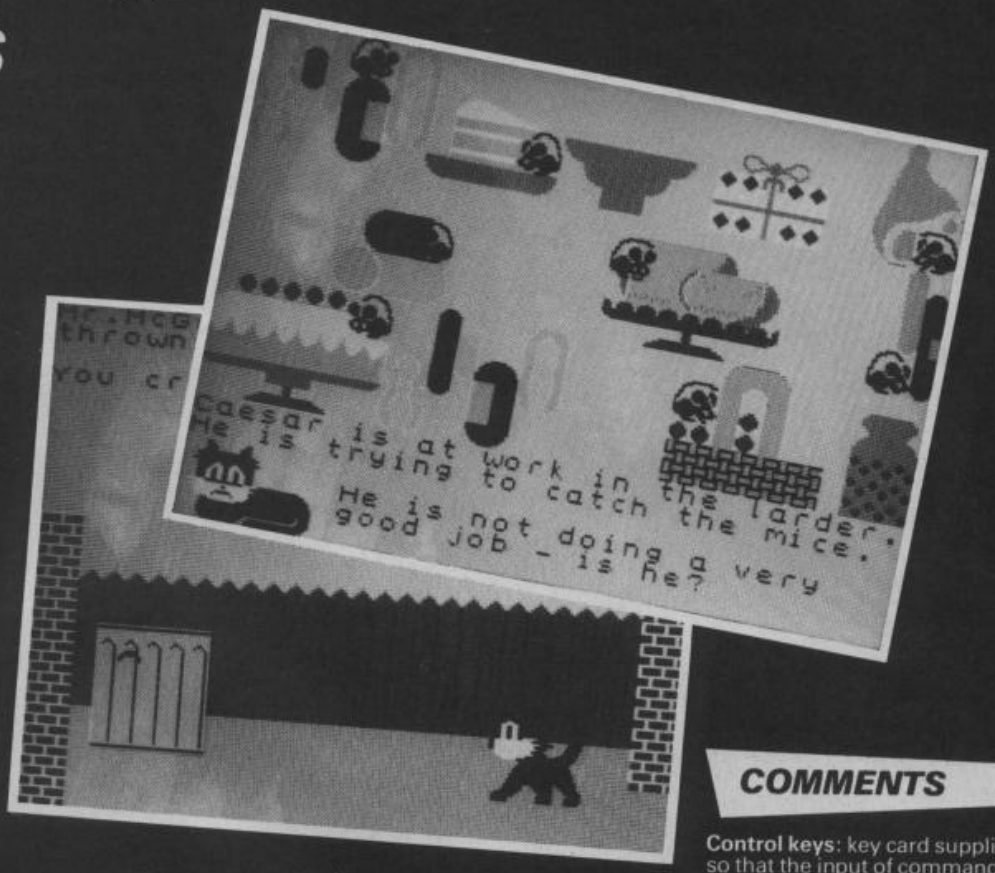


CAESAR'S TRAVELS

Producer: Mirrorsoft
Memory required: **48K**
Retail price: **£7.95**
Age range: **3 to 9 years (pre-readers with an adult)**



Caesar's Travels is, according to Mirrorsoft's publicity handout, 'a unique combination of animated story program and complete 64 page illustrated storybook. It's the first of a new generation of story corner/bedtime story resources that is equally useful in the classroom or at home'.

The format of the book might best be described as being a cross between a traditional story and an adventure program. After each section of narrative, the child is faced with various options, for instance after Caesar the cat is thrown out into the yard by his owner, an unfriendly-looking dog appears. The question is posed: 'What will you do now Caesar? Jump over the wall . . . . go to page 2. Climb the fence . . . . go to page 3.' The child can, therefore, follow many of the story routes leading to one of 18 endings, and each of these 38 different routes is a complete story in itself.

The computer game is a condensed version of the book, and features quite excellent animation of the chosen route, together with some very realistic sound effects. Many teachers and parents today fear that the growing fascination for computer games will drive children away from the pleasures of reading, but this package is an excellent example of how the two activities can be related. Indeed, if used correctly, the computer may do much to positively encourage reading.

The game itself is very simple for a young child to play. A key card is supplied which, when placed above keys 1 to 6 at the top of the Spectrum keyboard, shows the choices available — if the player wants Caesar to RUN, he presses the number key below the word on the key card. The pre-reading children who tried out the game for me had no trouble at all in learning to recognise the words on the card, and thoroughly enjoyed the program.

The book and the game are extremely useful for encouraging young children to make decisions, either on their own, or after discussion with others, and are great fun to use.

COMMENTS

Control keys: key card supplied so that the input of commands such as RUN, WALK, JUMP etc is executed by the use of a number key. ENTER to go back or answer key for puzzles. SPACE to continue, move arrows or start a new game.
Keyboard play: fast
Use of colour: very good
Graphics: young children will love the animated cat
General rating: highly recommended. A value-for-money package which is both enjoyable and educational.

KIDDISOFT

Producer: Kiddisoft
Memory required: **48K**
Retail price: **£3.99 per month**
Age range: **4 to 8 years**

This tape magazine was briefly mentioned in the article on Magnetic Magazines in the July issue of CRASH. Anne Menneer, the person behind *Kiddisoft*, aims to build up an interactive magazine using letters and pictures from children as well as offering a range of programs designed to have a learning content at the same time as being fun to play. Edition number One of the magazine contains six games covering a variety of skills from adding up to ten in *Adder* to word matching in *Pip*. There is also a *Nature Corner* where, in this edition, the child can learn about the Great Tit. A simple adventure game, *The Adventures of Pisky Green*, is to be a regular feature.

All the activities incorporated in the magazine are the sort of things you'd find going on in a primary classroom — letter and number work, reading, finding out, etc — so the cassette would be useful for reinforcing these basic skills. Most of the games are relatively simple and easy to play, though in *Pip* the word matching game where a series of words of a similar pattern — dip, bud, dab, dub — are flashed onto the screen, the letters are so small that a child would have difficulty in deciphering the word. The scansion of the short doggerel verse in *Humpty* is rather unsuccessful:

If Humpty's sum is wrong you see
Then you must press any key
If Humpty's sum is right
Then do nothing and sit tight.

The adventure game about *Pisky Green* is quite an interesting attempt to make a computer adventure more accessible to the young child. In the game, you are Pisky Green and the bad Raven has taken seven of your treasures — including a tin of fudge, and a bottle of mead which you have to go out and recover. Instead of having to type in a command in the usual way, a question is displayed on the screen eg: Will you go north? The other options available are only displayed if the player indicates that north is not the desired direction by pressing N for No. Daniel and Nicholas enjoyed this game, and it will be interesting to see how the adventures develop in the forthcoming editions of the magazine.

All in all, I like the idea behind this tape magazine, particularly the interactive aim. This, though, depends on the response from children, so I hope that parents and teachers will encourage their children to send off their pictures and letters to the **Kiddisoft Club**. With a little bit of polishing, this magazine could be a successful venture — I certainly hope it is.

COMMENTS

Control keys: kept simple for a young child to operate
Keyboard play: responsive
Use of colour: simple but reasonably effective
Graphics: not particularly inspiring
General rating: quite good value for money if there are several children between 4 and 8 in the family, as there is something to suit everyone in the magazine.

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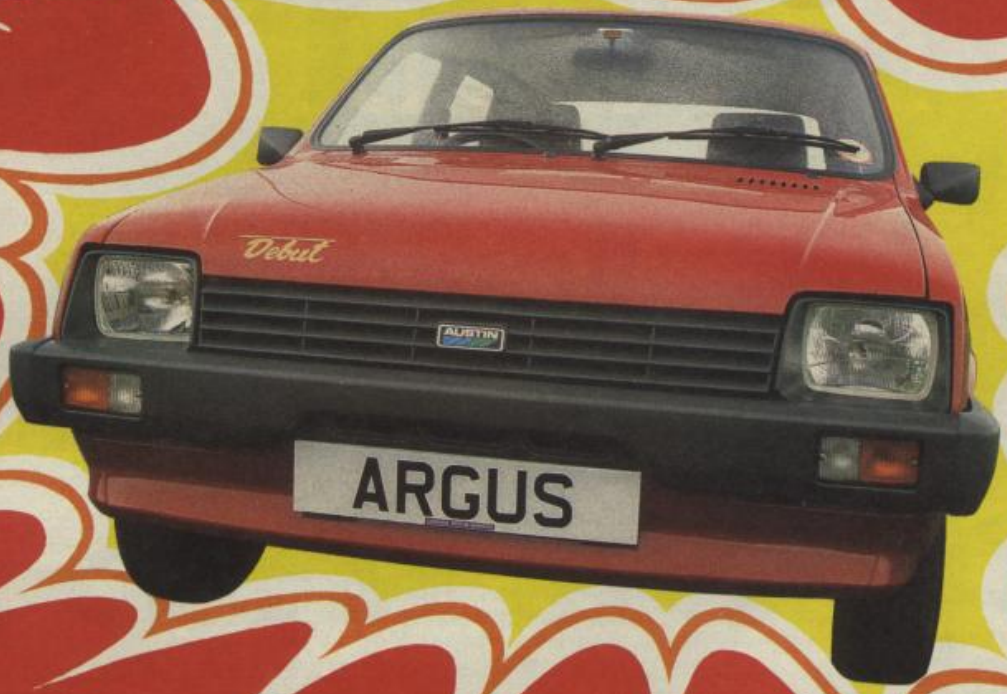

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2. The draw for prizes will be made by Jack Charlton no later than 28th February 1986.
3. Because of restrictions on Alligata Software Ltd. only persons between the ages 9 yrs and 21 yrs may go on the Adventure Holiday – 1st prize. This will be taken before the 31st May 1986, to be decided at the discretion of Alligata Software Ltd.
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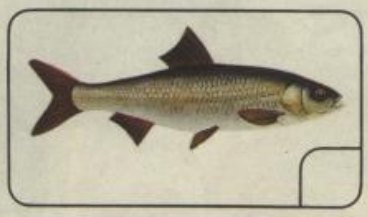

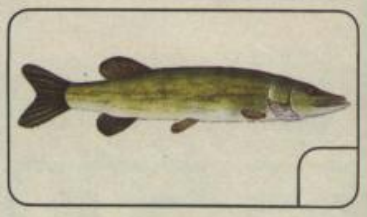
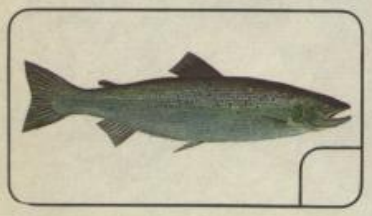

A Bleak
B Barbel
C Dace
D Perch
E Common Carp
F Salmon
G Tench
H Pike
I Rudd
J Crucian Carp
K Chubb
L Roach
M Bream
N Gudgeon
O Grayling

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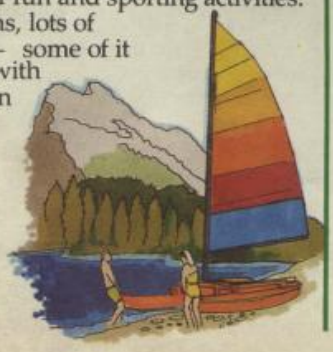

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3 April 84	● 'Missile Command' games ● Living Guide ● Sinclair Talks ● Code Name Mat
4 May 84	● The Quill utility ● Graphics utilities ● Microdrive ● 'Pengo' games ● Living Guide
5 June 84	● New Generation ● Jet Set Willy Map ● 'Panic' games ● Alphacom printer
6 July 84	● 3D in games ● Atic Atac Map 1 ● Specgraf ● 'Pacman' games
8 September 84	● Tir Na Nog ● Downsway & Comcon i'face ● White Lightning graphics utility ● Martin Wheeler ● Antic Map ● Design Design ● Lothlorien
9 October 84	● Games Workshop ● Dk'Tronics
10 November 84	● Battlefield Joystick — comparisons ● Deus Ex Machina
11 December 84	● Music Typewriter ● Sureshot j'stick ● Hisoft Ultrakit ● Lords of Midnight Map ● Wanted: Monty Mole Map ● Pyjamarama Map
15 April 85	● London Underground Map (!) ● Designer's Pencil ● Backpackers Map ● Technician ted Map ● Sinclair Story 1 ● Chris Sievey ● Scott Adams ● Mizar ● Artist: David Rowe
16 May 85	● Sports simulations roundup ● Sinclair Story 2 ● Firebird ● Incentive ● Light Magic graphics utility ● music utilities ● Underwurlde Map 1 ● Bruce lee map ● Sabre Wulf Map ● Everyone's A Wally Map ● Artist: Godfrey Dowson
17 June 85	● Denton Designs ● Frankie ● Spectrum surgery ● Sinclair Story 3 ● Knight Lore Map 1 ● Underwurlde Map 2 ● Tape to Microdrive ● Leonardo graphics utility ● Datel sound sampler ● Artist: David Thorpe
18 July 1985	●Gremlin Graphics profile●Artist Bob Wakelin●Sinclair TV●Tape Magazines●Leonardo utility part two●CRASHBACK looks again at games in Issue 8●Gyron map of Atrium●Modems round-up ●And the cover that had the Jehova's Jumping!
19 August 1985	***WITHOUT PAGES 123, 124, 125 and 126. WITH:*** ●CRL Profile●Pull out Oliposter — Fighting Spectrum●Mirrorsoft Profile●Inside the Timex 2068●Round Up of BASIC Compilers●On the Cover Artist Rich Shenfield●Maps of Dynamite Dan and Shadowfire
20 September 1985	●ALIEN 8 and DUN DARACH maps●Electronic Pencil Company Profile●Part Two of BASIC Compilers Round-up●The 64K Spectrum●Design Design Autoprofile, Part 1●Rod Cousens interview

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JETMAN
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WOW! A BRAN'NEW SPACE SHIP! AM I A LUCKY BOY!
YES YOU ARE, INDEED YOU ARE! LUCKY IS WHAT YOU ARE!
I HATE EARTHLETS
HUSH! YOU'LL GIVE THE GAME AWAY!
BOY O'BOY! EVEN MY MAGIC EYE DIDN'T SHOW ME IT WAS THIS GOOD!
YEAH...YEAH!
MAGIC EYE! (SNIGGER)!
YUK! HOW CAN OUR CAP'N BRING HIMSELF TO TOUCH A KRINKIE EARTHLET!
PATIENCE MY FRIEND! WHEN THE DONGLE-BOMB GOES OFF, WE WILL INVADE...
...AND WE'LL SURE GIVE THEM EARTHIES A SHOCK WHEN THEY SEE WHAT WE GOT UNDERNEATH OUR KILTS!
ADIEU! MON AMI!
MY EYE AN' I SHALL NOT FORGET YOUR GENEROSITY!
HUMP!
MAGIC EYE! SNORT!
HEE-HEE!
OH, HOO!
HEE-HEE-HEE!
LAFF!
SNIGGER!
DON'T FORGET! IF YOUR EVER NEAR EARTH, DON'T HESITATE TO DROP IN ON US!
SLAM!
OH, WE WILL...WE WILL!
AH-HA...
OH, HA...
WO-HAH...
...AH-HAA...
WO-HAR-HAR-HAR
AH-HAR-HAR-HAR
...EACH AND EVERY ONE OF YOU!
WO-HAW HAW HAW
THUMP THUMP THUMP
HOO!
GASP!
GASP
SHUTA POOR!
SHUTAT DOOOR!
NOT MANY CONTROLS – JUST A CUTE LITTLE CLOCK!
TIC TIC TIC
1825
ON
OFF
...AN TWO LITTLE BUTTONS!
WON'T BE LONG NOW! WE WILL SOON ASTONISH THE FEEBLE EARTHIES WITH OUR UNDER-KILT SURPRISE!
HO!
OKAY FELLERS! GET READY! THE LOONY IN THE BOMB IS RIGHT ON TARGET AND RIGHT ON TIME!
EARTH
BOMB
WELL, NOTHING TO DO FOR A BIT SO I'LL POLISH THE MAGIC EYE OF OK...
COR!
...THE EYE'S ACTIVATED...
ONE DOWN... TEN MILLION AN' TWENTY SEVEN TO GO.... TWO DOWN.... TEN MILLION AN' TWENTY SIX TO GO...
PO-DUMPH
AN' THAT'S ME SHOOTING THOSE NICE ALIEN TYPES..!
BUT WAIT! CAN I BELIEVE MY EYES? AM I REALLY HOME? IS THIS REALLY THE GOOD OLD EARTH, BWAH?
I SHALL LAND GENTLY IN THIS PLEASANT PARK, THEN AMAZE AN' DELIGHT EVERYONE WITH MY SUDDEN APPEARANCE...
GENTLY... GENTLY..
TIC TIC TIC TIC TIC TIC
DONGLE
?
CHEE-ARGE!!
WHO SAID THAT...?
GAWSH! EVERYONE ON EARTH HAS HAD THEIR BRAIN DONGLED! ALL EXCEPT JETMAN (GUESS WHO) WHO IS THE ONLY ONE LEFT TO FACE THE ALIENS...WILL HE TRIUMPH?.. WHAT HAVE THEY GOT UNDER THEIR KILTS?? ..... NEX' MONTH!

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HOTLINE TOP 30 FOR OCT

1 (4) **SHADOWFIRE** Beyond
2 (16) **HYPERSPORTS** Imagine
3 (1) **SPY HUNTER** US Gold
4 (2) **ALIEN 8** Ultimate
5 (6) **DUN DARACH** Gargoyle Games
6 (3) **MATCH DAY** Ocean
7 (5) **KNIGHT LORE** Ultimate
8 (—) **FRANK BRUNO'S BOXING** Elite
9 (23) **SPY Vs SPY** Beyond
10 (24) **NODES OF YESOD** Odin

11 (9) **STARION** Melbourne House
12 (8) **BRUCE LEE** US Gold
13 (14) **MATCH POINT** Psion
14 (7) **EVERYONE'S A WALLY** Mikro-Gen
15 (19) **HERBERT'S DUMMY RUN** Mikro-Gen
16 (—) **DYNAMITE DAN** Mirrorsoft
17 (13) **DRAGONTORC** Hewson Consultants
18 (—) **SOFT AID** Various
19 (11) **LORDS OF MIDNIGHT** Beyond
20 (10) **DOOMDARK'S REVENGE** Beyond

21 (17) **SKOOL DAZE** Microsphere
22 (20) **MOON CRESTA** Incentive
23 (15) **WORLD SERIES BASEBALL** Imagine
24 (29) **GYRON** Firebird
25 (21) **DALEY THOMSON'S DECATHALON** Ocean
26 (12) **UNDERWURLDE** Ultimate
27 (18) **WIZARD'S LAIR** Bubble Bus
28 (—) **TAPPER** US Gold
29 (—) **CAULDRON** Palace Software
30 (30) **CHUCKIE EGG 2** A'n'F

Shadowfire shuffles back to the top this month while *Doomdark's* and *Underwurlde* take tumbles in the popularity stakes. Three big climbers each jump up fourteen places: *Hypersports*, *Spy Vs Spy*, and **Odin**'s *Nodes of Yesod* — worthy clamberers indeed. **Elite** will no doubt be pleased to see their latest offering *Frank Bruno's Boxing* leap into the chart at number eight and it's unlikely there'll be wailing and gnashing of teeth at **Mirrorsoft** HQ when they see *Dynamite Dan's* performance. *Softaid*'s back and a couple of new entrants sneak in at the bottom of the chart — but *Chuckie Egg 2* ain't gonna leave. . . .

This month's HOTLINE Draw winner is **Jeffrey Blair** who hails from Thurston Field, Cumbria. The four runners-up are, in descending order of nothing in particular: **Lennert Stock** of Zandvoort, Holland; **Matthew Reynolds** of Cannock; **Steve Brown** of Southgate, London and **Andrew Brown** whose an Erdington lad — a Brummie no less.

NEW BRILL 'N' FAB HOTLINE PRIZES!!!

The CRASH HOTLINE & ADVENTURE CHART is Britain's most important popularity chart. It depends entirely on your support and we need your votes. There's now only ONE WAY to submit your votes, and that's by sending them to us in the mail. Use the coupons which normally lurk on page 122 (ish), or a photocopy or even hand-tooled Moroccan parchment to whizz your votes to us.

Remember, every month we draw out ten winning forms, five for each chart and the first out of each sack receives £40 WORTH OF SOFTWARE plus a CRASH T-SHIRT. Then the four runners up in each chart will win their very own CRASH T-Shirt and a CRASH CAP which they can use to impress their friends, make their enemies envious and generally show off with!

ADVENTURE TOP 30 CHART

It's sproing, leap, cavort time again on the Adventure Chart. Five new entries, four of them in the upper half of the chart, and a couple of massive jumps and falls within the chart. *Witch's Cauldron* vacates the number seven slot and dives to thirty while old favourite *The Hobbit* shakes the dust off furry feet and clambers seventeen slots into number three. Otherwise its well-known names shuffling about and readjusting the Adventure Chart pecking order. Next month should see the first chart compiled under the new system of five votes rather than the "as many as you like" free-for-all. Maybe things will change radically — or will they stay the same? Next munf...

1 *(6)* **LORDS OF TIME** Level 9 Computing
2 *(3)* **DOOMDARK'S REVENGE** Beyond
3 *(20)* **THE HOBBIT** Melbourne House
4 *(—)* **AVALON** Hewson Consultants
5 *(9)* **COLOSSAL ADVENTURE** Level 9 Computing
6 *(4)* **DRAGONTORC** Hewson Consultants
7 *(1)* **DUN DARACH** Gargoyle Games
8 *(—)* **EMERALD ISLE** Level 9 Computing
9 *(—)* **ERIK THE VIKING** Mozaic
10 *(18)* **EUREKA!** Domark

11 *(—)* **FOURTH PROTOCOL** Hutchinson
12 *(16)* **GREMLINS** Adventure International
13 *(15)* **KENTILLA** Micro Mega
14 *(8)* **LORDS OF MIDNIGHT** Beyond
15 *(23)* **MOUNTAINS OF KET** Incentive
16 *(25)* **ORACLES CAVE** Dorcas
17 *(5)* **OUT OF THE SHADOWS** Mizar
18 *(11)* **RETURN TO EDEN** Level 9 Computing
19 *(2)* **SHADOWFIRE** Beyond
20 *(14)* **SHERLOCK** Melbourne House

21 *(17)* **SNOWBALL** Level 9 Computing
22 *(12)* **SPIDERMAN** Adventure International
23 *(24)* **THE HULK** Adventure International
24 *(10)* **TIR NA NOG** Gargoyle
25 *(21)* **TWIN KINGDOM VALLEY** Bug Byte
26 *(30)* **URBAN UPSTART** Richard Shepherd
27 *(28)* **VALHALLA** Legend
28 *(13)* **VALKYRIE 17** Ram Jam Corporation
29 *(—)* **VELNORS LAIR** Quicksilva
30 *(7)* **WITCHES CAULDRON** Micro-Gen

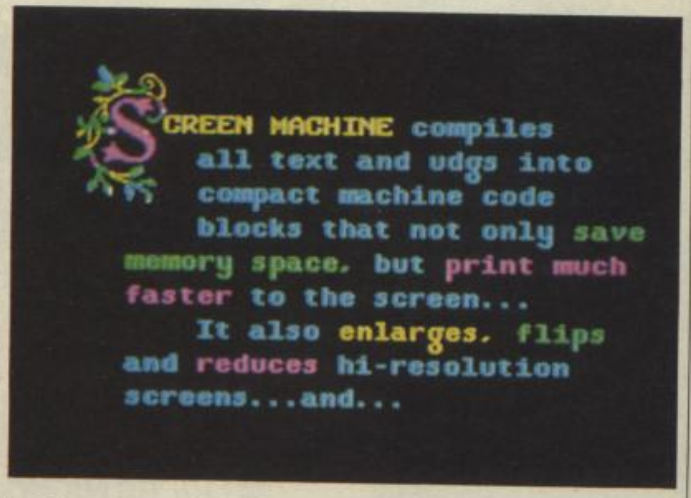
Five personages also pick up prizes on the Adventure Chart Draw. First out of Derek's Hat was **Adam Webb** of Coalville, Leicester closely followed by **Robert Hardcastle** from Liverpool; **David Griffiths** a Wigan Lad; **Tony O'Keefe** from Laindon, Essex and **Phil Williamson** a lad from Camden Town, London.

TECH NICHE

TECH NICHE

PAINT PLUS and the SCREEN MACHINE

Way back in February 84 we reviewed a graphics utility by the name of PAINTBOX. Print'n'Plotter (P&P) have extended the program since then and repackaged it under the new name PAINT PLUS. To round off the graphical facilities they have produced a companion program called SCREEN MACHINE. PAINT PLUS deals with the screen and UDG creation, while SCREEN MACHINE handles multiple screens, provides screen modifications, compiles text and compresses memory saving screens. FRANCO FREY takes a look at the new package.



PAINT PLUS

PAINT PLUS is unmistakably a descendant of PAINTBOX. On side two of the cassette there is a very stylish DEMO program with five individual screens. Rather than let you wonder whether or not the screens have actually been created with PAINT PLUS, the 88 page Deluxe manual covers these samples in detail explaining all the little tricks and problems. 'Cover girl' is beautifully animated (she winks). Side One contains the utility which is loaded in two parts as PAINT PLUS and ORGANISER. PAINT PLUS can be run under three different cursor controls, Kempston, cursor keys and alternative which is configured by default for the BRITISH MICRO GRAFPAD. The Main Menu displays the main three work areas: UDG Creator, Precision Plotter and Screen Planner, which combines UDG's and screen creations.

UDG EDITOR

The submenu provides six choices. VIEW BANKS displays the four available UDG banks and any of these may be called into the 'current' UDG area for editing. DRAWING BOARD is the creative work area. Either a normal Sinclair character, a custom UDG character or a blank can be called up as a starting point for the new creation. On the screen two large 8x8 grids will be displayed, one being the inverse, in the centre two actual size characters, one inverse, the other normal and a readout of the decimal value for each line of the UDG. As usual the cursor is moved around on the normal oversize grid and squares fired or filled with the joystick button (or 0 button).

Once created, the UDG may be modified with one of the several UDG functions INVERSE, ROTATE and MIRROR. Saving into one of the 21 current UDG character positions is done through FILE WORK. The UDG editor menu provides a save and load from tape option. SKETCH PAD provides a sketch area, where related UDG characters may be printed (for multi character sprites). These characters however can only be from the current UDG set. The manual provides all the information on how to access the four banks from within Basic programs. An alternative character set is provided on tape (side 2) after ORGANISER and the two microdrive adaption programs.

PRECISION PLOTTER

This is the High-res drawing board for screen creation. After selecting the current INK, PAPER and BRIGHT colours, the blank screen will be displayed with a crosshair cursor, the LINE MODE indicator, a sample of the current ink colour and the digital readout of the x,y position. The cursor movement is fast, but can be slowed down by pressing CAPS SHIFT. The design work can begin. The following options are available:

Q. PLOT
W. DRAW
V. CLS
B. BOX draws a rectangle between the original and the new cursor position diagonals.
H. CIRCLE with radius prompt.
R. RADIAL MODE draws lines always from the original cursor position without updating to the new cursor point.
3. LINE MODE
A. ARC with a CURVE or ARC prompt, which requires inputting a positive or negative real number. 1 gives a semi-circle.
E. ERASE erases the last drawing operation, by recalling

the screen from the ERASE memory, which is updated before each command.
N. OVER provides the Spectrum Over mode.
X. INK allows the change of the current ink colour.
M. SINGLE PIXEL CURSOR
K. CROSSHAIR CURSOR
A **FILL** routine is provided and depending on keys F,D,G,L or I the drawn object will be painted solid, with a dot pattern, a grid pattern, a horizontal or vertical line pattern.
EDIT MODE changes the cursor to a rectangular frame and this can be moved around the screen similar to the crosshair cursor. Pressing key 2 will capture a detail of the screen and enlarge it x8 for detail work. Enter returns the full screen. In magnification mode the attributes are not affected and colour must be added later with the full screen.
PAPER WASH MODE offers the choice of Paper colours. The Border colour changes to indicate the paper colour in use and the new colour can be 'washed' on the screen. A pixel or character brush width are available depending on the cursor selected. No attribute grid is available in the LINE MODE, so it will be difficult not to make the colour attributes clash.
SYMBOL SHIFT. HELP MENU provides an overview of all the functions and their access.
P. PERMANENT MEMORY stores the current screen in memory for later recall.
9. GRAPHICS recalls the screen from memory.
Z. COPY copies the current screen to the printer.
S. SAVE saves the current screen to tape.
J. LOAD loads a screen from tape.
BREAK exits PRECISION PLOTTER after saving the current screen to PERMANENT MEMORY.

SCREEN PLANNER

SCREEN PLANNER combines the work created in the UDG editor and PRECISION PLOTTER and text may be added to it. Selecting SCREEN PLANNER displays the drawing on the screen and the current UDG bank along the bottom of the screen. Any of the four UDG banks may be called up simply by pressing keys 1-4.

SCREEN PLANNER is used in a similar way to UDG SKETCH, but with the extended facility of calling UDG from any of the four UDG banks and of changing the INK/PAPER/BRIGHT/FLASH colours of any character. The x,y readout relates to the Sinclair PRINT AT grid. Key X (Ink) is selected for changing Ink and Paper colours before printing a character. Key Z(Flash) changes any character under the cursor into its Flash state. SYMBOL SHIFT provides the TEXT ENTRY MODE. The Text is entered in the edit area and on pressing Enter is printed at the cursor position.

SCREEN PLANNER has the facility of 'grabbing' UDGs from the screen by positioning the cursor over the selected screen area and pressing Enter. A UDG position A-U must be entered. The new UDG will appear in the current UDG bank at the bottom of the screen, but must be saved permanently via UDG EDITOR. The grab technique can be used as an alternative to the SCREEN EDITOR for designing multiple character UDG's. Together with the enlarged edit mode this provides a 4x3 character cell to work on. An interesting feature is provided with key 0, which flips the four UDG banks in rapid succession to test out UDG animation sequences.

ORGANISER

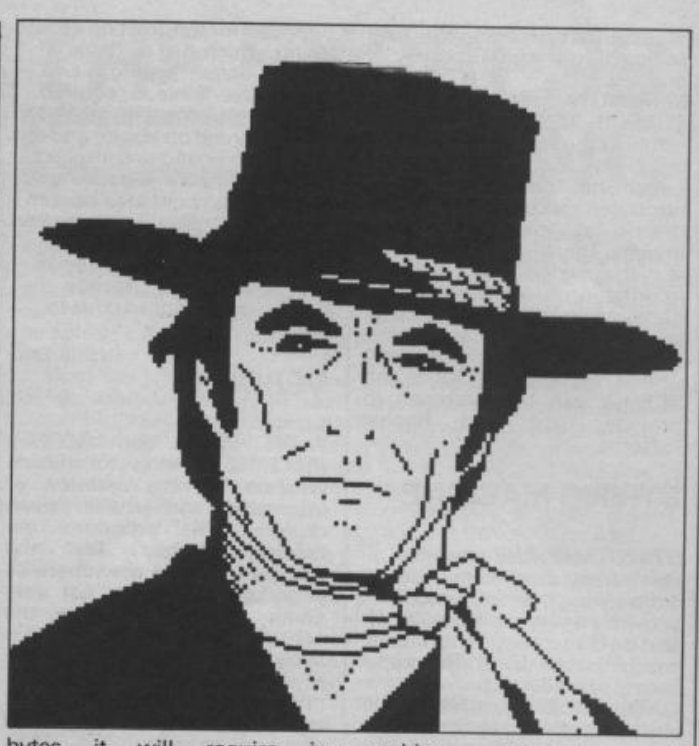
ORGANISER is a separate program to PAINT PLUS and chains the UDG and screen files into one single MULTI-FILE, providing also the information to manipulate them from within Basic or machine code. Up to 35867 bytes of memory are available for the MULTI-FILE.

SCREEN MACHINE

SCREEN MACHINE contains three separate programs and an Index/Loader. SCREEN MACHINE ONE is a Screen Graphics Compressor, SCREEN MACHINE TWO a Screen Graphics Processor and STRING MACHINE a Text Compiler.

SCREEN MACHINE ONE

Most screen graphics contain areas of empty space. Rather than store these as individual blank spaces, SCREEN MACHINE ONE counts them and replaces them with a flag and a number. The effectiveness of the compression depends on the complexity of the picture, but up to 4K can be saved for a single screen. Compressed screens print slightly slower to screen due to the conversion time requirement. The Main Menu provides four options, CATALOGUE, STORE, LOAD and SAVE. A normal screen is first loaded via STORE. The present compression mode may be changed or retained. If retained, the screen can either be checked for the amount of



bytes it will require in compressed mode or directly stored at the next available memory location.

Once stored, the CATALOGUE page will be displayed, which keeps a record of the stored pictures together with their starting locations, length, mode and two numbers which have to be poked to direct the recall process. The total memory space for the pictures is 35235 bytes.

The screen compression options are related to the screen size. FULL stores the whole screen area, TOP the top third, MID the middle third and BOT the bottom third of the screen. Further to this the screen can be saved with or without attributes and in normal or compressed mode.

When all the screens have been entered and compressed, the MULTIPLE-FILE may be saved to tape or microdrive. Similarly, an already existing MULTIPLE-FILE may be reloaded for further processing. The manual provides all the required information for handling the MULTIPLE-FILE from Basic or machine code. With the ability to create a long and instantly recallable sequence of images, FLIP SCREEN ANIMATION can be performed quite easily. Good use of this is made in the DEMO program for SCREEN MACHINE, where the animation of three horses should impress anybody. Again, the manual explains in detail how this was constructed.

SCREEN MACHINE TWO

SCREEN MACHINE TWO enables processing of previously drawn screens. Five options are available from the Main Menu. The first two allow screens to be loaded from tape or microdrive into permanent memories A and B. Similarly options 4 and 5 dump the screen to tape. Option 3 is the DRAWING BOARD and it is here where the creative work is done. A series of keys will be presented along the bottom edge of the screen to invoke various functions.
C. CALL transfers screens A or B to the display/work area.
S. STORE stores the current screen into permanent memory A or B.
B. BLEND superimposes a screen from A or B onto the already existing display screen.
E. ENLARGE enlarges a portion of the screen indicated by W (WINDOW) by a factor of two for each press of the key. It also enlarges the attributes proportionally. The SCROLL functions can be used to align the required section in the window.
R. REDUCE reduces the whole screen by a factor of two with the loss of some detail, as it discards alternate lines horizontally and vertically. Attributes cannot be reduced, so colours will have to be added at a later stage.
F. FLIP provides a mirror image of the screen.
I. INK gives the option of changing the whole screen to a new INK/PAPER/BRIGHT combination or can SELECT particular colour combinations and change only occurrences of these.
W. WINDOW creates an inverse window whilst the key is pressed, which can be enlarged if the key E is pressed and is used for centering or positioning scrolled screens.

T. THIRDS inverses alternate screen thirds whilst the key is pressed.
M. MENU returns to main menu.
CURSOR KEYS are used for scrolling the screen by character cells with attributes, or with Caps Shift pixelwise without attributes and provides an easy means of relocating screen images. There is no wraparound at the edges, so screen information is lost at the leading edge, while the trailing edge is left blank. This provides a facility for masking off or blanking screen sections. REDUCE and SCROLL can be combined to provide Step and Repeat Patterns.

STRING MACHINE

STRING MACHINE compiles text into machine code. Apart from saving memory space it provides a very rapid display of text on the screen with its inbuilt machine code driver. The menu provides access to a CATALOGUE section, where all the strings that have been created are listed together with their locations in memory and their lengths. Individual strings or all of them may be viewed. Up to 48 individual strings may be catalogued. A BASIC program is provided for the creation of the string, which also contains all the text/screen positions and attribute commands required. When the program is run, the text is printed on screen and can then be re-edited or compiled. Options are available for selecting the print area (screen lines 0 to 21) or edit area (screen lines 22 and 23) and start address of the compiled code. The SAVE TO TAPE facility dumps the compiled code to tape.

VERDICT

PAINT PLUS and SCREEN MACHINE offer a formidable weapon for the creation of interesting and artistic screen designs. The programs are linked logically for the unexperienced in the superb 88 page manual, which not only gives excellent tips for the actual design work, but includes such information as conversion to microdrive operation, photography of screens and even the use of Spectrum graphics on video. The DEMO programs with the sample screens are not only window dressing, but are a help in understanding the potential of the programs. This is helped by the extensive explanations provided in the manual. Highly recommended for Spectrum users with artistic fingers . . .

Program: PAINT PLUS & SCREEN MACHINE
Producer: PRINT'N'PLOTTER
Price: £9.95 & £8.25 PLUS P&P

MIDI — MORE TECHNO-MUSIC WITH YOUR MICRO

In previous Niches, we have devoted a fair bit of space to reviewing software and hardware that help you and your Spectrum create sound and music. Now it's time we took a look at how your trusty computer can control dedicated music synthesisers. We've prevailed upon JON BATES to plug in his musical intellect, and prepare an intro to the world of MIDI. Next issue, Mr Bates willing, we should bring you details of specific devices and name a few synthesiser names for you to try them on. . . .

If you've been casting you eyes or ears over music shops or magazines during the past few years, you cannot have failed to notice that more and more instruments and effects are boasting a MIDI INTERFACE capability. Sales pitches aside, a lot of folks aren't really sure what all this new-fangled MIDI capability is all about. If you fancy yourself as a budding composer of electronic music, and want some help from your Spectrum, read on.

MIDI stands for Musical Instrument Digital Interface, and came into being in 1982 after a high-level meeting between most of the major synth manufacturers in the world. Prior to this meeting of Musical Big Cheeses, manufacturers were plodding on with their own specific ways and means of getting synths connected up and talking to one another. As a result of the variety of ways of going about this, sales were not too healthy and mutual strangulation was imminent.

Most synthesisers were (and are) using digital methods to create and store sounds; it seemed reasonable to come up with a standard which permits synths from different manufacturers to be connected together, thereby doubling the sound. Seems simple, but the story doesn't end there.

Drum machines have always been capable of sending clock pulses to whatever synth will accept them. This means that the drum machine can effectively control the speed, and synchronise with a pattern of notes put into its companion synth's memory. Presto. Instant electro-pop with no mistakes (in theory!). Take this one step further, with MIDI, and you can link together a host of synthesisers, all merrily playing one another and presenting a united musical front — all in time with each other. MIDI is much more than a straightforward connecting cable, however.

If one synth can play another — then why not harness the power of a computer, get it to store all the information, and train it to act as Master Conductor. Enter the Spectrum. With a suitable MIDI interface and software, it is possible to fill your Spectrum with a fair number of notes. The really cunning part is that you can give the Spectrum every tiny detail about each note — whether it should be loud, soft, short or long. Furthermore, MIDI is capable of passing on more than these details about individual notes — and can also change from one sound in the synths voice memory to another, thus governing what *sound* a note should be.

Most electronic synthesisers have the ability to memorise at least 20 'voices', and many can

remember considerably more. The variety of sounds available is almost limitless. However, you can usually only play one voice at a time on a synthesiser. Link your Spectrum up to one synthesiser via MIDI, and you have something quite clever. MIDI can, however, talk to and arrange to control up to sixteen synthesisers in one go (*glad you can afford that many* — **ED**). MIDI can control this many instruments by allotting each synthesiser a channel number — probably labelled on the synth as 'MIDI channel select', and it then becomes possible to address each synthesiser directly and tell it which notes to play in which voice.

If you've written your multi-synthesiser masterpiece correctly, then the all the synths hooked into the system will play along and perform your composition under the careful and precise control of your Spectrum. Not all that many people can run to the luxury of sixteen synthesisers . . . but if you've got one, and a chum down the road has another . . . and then there's that one. . . .

Needless to say, the Spectrum is perfectly capable of acting as a master clock so that drum machines can function in perfect synchronisation with the rest of the amassed technological gadgetry at your disposal.

In order to understand further what MIDI is all about, a little musical erudition is required. Those of you well attuned to the mysteries of music should be fairly familiar with the next few bits of information . . . but hang on in there!

Notes may be entered into a Spectrum either by Real Time or Step Time. Real Time means that the computer tucks away into its memory details about each note as you play it on the musical keyboard — the Spectrum acts rather like a tape recorder. It can then play your notes back to you from its memory, bum notes and all. Cunning software may, however, allow you to edit the bad ones out. Step time, on the other hand, is a bit more laborious. The exact details of each note are entered manually, either by combination of synthesiser and Spectrum keyboard, or directly from the computer's keys. Step has one major advantage: it leads to music which sounds clean and very together — ideal for all electro-type stuff. It also has a great appeal for those of us with a little less than wonderful dexterity at the keyboard. Results are usually displayed on-screen in musical notation, although some software needs some fairly hectic maths to determine the required amount of steps per note. Also sequences can be created and instigated using step time. (A sequence is a set pattern of notes that is usually repeated over and over to form a basic part of the composition — a musical subroutine if you like.) And it is possible, using complex systems, to arrange a song so that certain sections can be repeated as required.

MIDI controlled synthesisers usually perform in polyphonic (Poly) mode. That is, they will play more than one note at a time. (A piano is polyphonic, a kazoo is not.) MIDI allows such synthesisers to be addressed in three ways: Omni — all the synths play exactly the same notes, all together; Poly — the master controller can tell each synth to receive only information on the particular channel it has been set to (1 to 16) and Mono — any voice in the synthesiser's memory can be called up to play at any given point within the composition. Spectacular sound changes may be achieved in this way.

One extra facility offered with MIDI in combination with your Spectrum is particularly useful if you can only play by ear, and want to produce a score of your real time composition. Print outs of the music written into memory can generally be made using a graphic quality printer.

Synths are fitted with at least two MIDI ports, IN and OUT, so that they can transmit and receive MIDI information. Many of them also have a THRU port, which enables instruments to be chained together so you can achieve those spectacular orchestral effects alluded to previously.

MIDI actually functions on a modified 8-bit system wherein the first bit of information, the flag, simply defines the nature of the information following — either Status or Data. Status tells the synth which part of it is required to work, while Data tells it what to do. For example, the Status could be 'Sustain' — the synth would then access its internal sustain department. The data then following tells it how long to hold, or sustain, the note.

At either end of each byte is a start and stop bit, which marks its beginning and end. Provision is also made for individual manufacturers to allow their instruments to communicate only to each other. This is because some synths have features not found on others.

All in all, MIDI is an immensely powerful musical tool, which is, as yet, only in its infancy. Next month, we should be taking a look at specific interfaces, and some synths which you can mate up with your Spectrum. Watch out Depeche Mode, the Synthesiser Sound of Sid Spectrum's going to be big soon!

● Further information regarding the precise MIDI code and details of addressing can be obtained by the super technically minded reader from: Sequential Circuits Inc, PO Box 16, 3640 AA Mijdrect, Netherlands. It'll cost you £2.50, and make your cheque out to 'SCI'.

THE EXPRESS GANG

IF YOU DON'T enjoy your tea while waiting for your program to load from the audio cassette recorder, or you're just generally of a nervous disposition, you will have considered acquiring an improved storage medium for the Spectrum. Most people reckon that they can transfer their games collection on this new acquisition and will be able to call off any desired game at the bat of an eyelid! Whoops, not quite so . . .

Most storage devices require some sort of operating system, which enables the user to access the various functions. With the Spectrum this usually means that the operating system provides an extension of the BASIC instructions, without interfering with the normal cassette commands. These functions can thus be called up within BASIC and executed either directly from the keyboard or from within the BASIC programme. The commands are usually reminiscent of the BASIC Microdrive commands, but do vary quite a bit from disc system to disc system. The only other alternative access to the drive functions is via machine code, but unless the manufacturers provide the necessary information regarding the entry points to the various machine code routines, this approach may be impossible or of little interest to the average user.

It may be noted that until recently none of the drives had a hardware triggered interrupt facility, which would allow the games program execution to be interrupted and the complete contents of the Spectrum memory to be dumped, a perfect way of copying cassette games onto disc/cartridge. The Microdrive in combination with the excellent *Mirage* interface manages to do this and the latest addition is the improved version of **Technology Research**'s *Beta Disk Interface* with TR-DOS V4.

For the other interfaces, if the user knows what he is doing, there is the possibility of breaking into the program and manipulating it onto disc in various sections, but only if the operating system memory requirement does not interfere with the program execution area. The drives vary considerably in the memory requirements and some drives make it their business not to use a single byte of the standard 48K available to the Spectrum, an obvious advantage.

In this issue of CRASH **Franco Frey** begins a survey of the Spectrum fast storage market which will include such mundane things as the Sinclair *Microdrive* right up to systems which make the Spectrum appear to be an add-on.

Not all these storage devices belong to the desirable group of floppy disc drives. We review Microdrive/Interface 1 lookalikes such as the *Wafadrive* with its stringy floppy cartridges; the latest entry, the *Triton*, with its peculiar spiral track motion disc system and the horde of standard Shugart compatible floppy disc drives such as the *Beta Disc*, *Kempston*, *Timex*, and *Opus*. Many of these products include added benefits such as serial and parallel interfacing and some even provide joystick interfaces.

The units will be individually reviewed and scrutinised right down to the last bolt or screw. We shall be specifically looking at the cost and performance of the individual storage media, the mechanical and electronic performance of the devices and, most important of all, how the operating systems involved interface with the good old Spectrum.

So here comes the crazy Express gang. . . .

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TRITON QD

HARDWARE:
Large cream coloured disk drive unit with integrated power supply and mains lead connected via permanent lead to black coloured interface box which connects to the Spectrum system edge connection. Interface provides an expansion port for printer or other add-on. A slide switch is provided for drive selection. Interface 1 may not be connected to the system, as it uses same ROM configuration.

SYSTEM DESCRIPTION:
Although the TRITON QUICKDISK uses hardjacketed floppy disk media, it falls under the category of the stringy floppy systems, as the access is not random but sequential. Unlike the standard disk drives, where individual tracks may be accessed by positioning the read/write head with a stepper motor, the TRITON QD combines the floppy disk rotation with a continuous linear tracking of the head and thus creates a single spiral track along the disk similar to a record groove.

The spiral is completed within eight seconds whereupon the linear motion disengages and returns to the start position. This means that consecutive access time is restricted to eight seconds. In general this works out faster than the Microdrive and similar to the Wafadrive. Formatting requires only one go and this means an extremely fast formatting time. The interface caters only for one drive and should a second drive be required, a second interface will have to be installed.

OPERATING SYSTEM:
Extended Basic residing in shadow ROM.

SYSTEM COMMANDS:
FORMAT <drive number> *formats and initialises a diskette.*
CAT * <drive number> *examines and displays file contents on screen: Bytes free, Filename, Type (Basic-b, Data-d, Machine code-m), Size (bytes) and Execution address.*
SAVE * <drive number>; b; "filename" *stores BASIC program to diskette on selected drive number.*
SAVE * <drive number>; d; "filename"; <variable name> *stores a data file to a diskette on selected disk drive.*
SAVE * <drive number>; m; "filename"; <starting address>; <ending address> *stores a machine code program to a diskette on selected disk drive.*
LOAD * <drive number>; "filename" *loads a file from diskette in selected disk drive.*
ERASE * <drive number>; "filename" *deletes a program from diskette in selected disk drive.*
COPY * <drive number> TO <drive number>; "filename" *copies a file from one drive to the other.*
COPY # *formats a diskette on drive 2 and block transfers files from drive 1 to drive 2. Neither copy command can be used in BASIC program mode.*

ERROR REPORTS:
13 error messages

EXTRA FACILITIES:
Second drive requires extra interface.

MANUAL:
Preliminary manual sufficient, contains most necessary information.

APPLICATION PROGRAMS:
None, but listing of utility included for transferring unprotected programs from tape to disk.

CRITICISM:
Slow access due to loop time. Fairly expensive for stringy floppy type drive without serial or parallel ports.

COMMENTS:
Longer life media compared to cartridge tapes.

MEDIA:
2.8 inch hard jacketed floppy disk with write protect tab. Price £2.99

TECHNICAL SPECIFICATION:
Number of drives per system:2
Storage capacity (formatted): 100Kbytes (2 sides)
Number of sectors: 20 per side
Sector size: 2.5Kbytes
Data transmission rate: 101.6 Kbits per sec
Recording density: 4410 BPI

TIMING:
Formatting: 8 sec
Cataloguing:2.5 - 8 sec
Loading a screen: 2.5 - 8 sec

PRICE:
£119

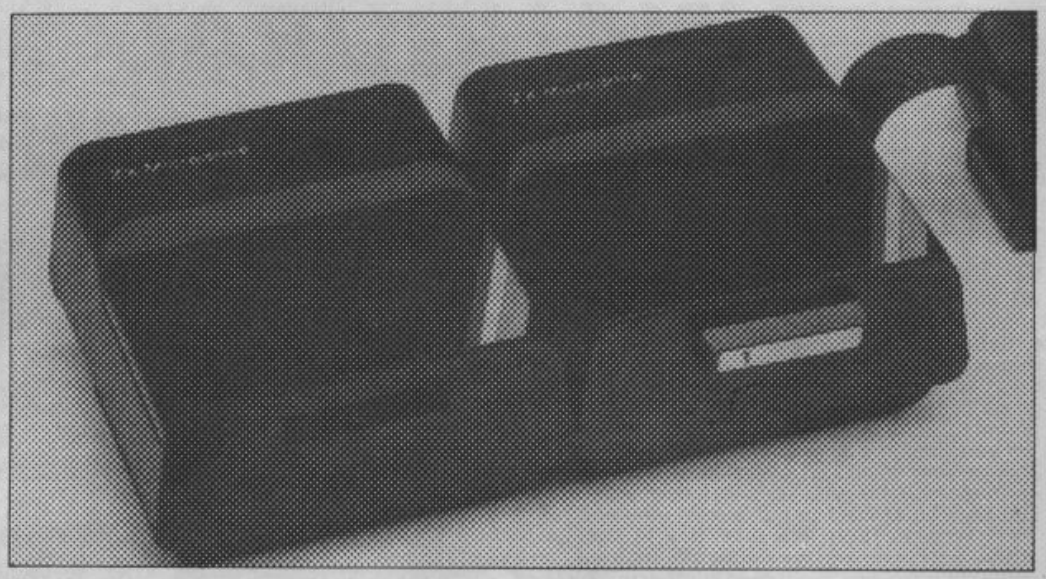
MICRO-DRIVE AND INTER-FACE 1

HARDWARE:
ZX INTERFACE 1 stacks under the Spectrum and uses the Spectrum system edge connection. It includes a 9-pin D serial port connector and the LAN input and output sockets and provides also an extension port for further add-ons. The MICRODRIVE connects via a pluggable flat cable to the INTERFACE 1. Further MICRODRIVES can be stacked side by side.

SYSTEM DESCRIPTION:
The Interface 1 incorporates the Microdrive controller, a local area network (LAN) and a serial RS232 interface. Up to eight Microdrives may be accessed, with each having a formatted capacity of more than 85K. The system commands are incorporated as a BASIC extension in a shadow ROM. Two new concepts have had to be established, the CHANNELS and STREAMS. The various functional parts of the computer system are defined as channels to which data can be sent. There are seven types of channels, the keyboard (k), the screen (s), the ZX printer (p), the text RS232 interface (t), the binary RS232 interface (b), the network (n) and the Microdrive (m). A network channel requires a station number "n"; x where x is in the range of to 0-64. A Microdrive channel requires a Microdrive number and a file name "m"; y; "name" where y is the Microdrive number (1-8) and the name is a string between 1 and 10 characters long. The routes along which data flows to and from the channels are known as STREAMS. There is a maximum of 16 streams #0 - #15. Apart from the four streams #0 to #3 the streams may be between any input and output channels. Streams #0 and #1 output data to the lower part of the television screen and input from the keyboard. Stream #2 outputs to the upper part of the screen but cannot input. Stream #3 outputs via the ZX printer, but cannot input. Stream channels have to be opened and closed for use.

OPERATING SYSTEM:
Extended Basic residing in 8K shadow ROM.

SYSTEM COMMANDS:
RUN *automatically loads and runs after a NEW or after switching on any program stored under the name "RUN" in Microdrive 1.*
CAT [#x] *displays an alphabetically ordered list of all files in the cartridge of Microdrive n. With the optional stream statement the catalog can be sent to the specified stream.*
LOAD * "m"; n; "filename" *loads a program from Microdrive n with the name "filename"*
SAVE * "m"; n; "filename" [LINE x] *saves a program to the Microdrive n under the filename. If the line statement is included, the program will automatically run starting from line x.*
VERIFY * "m"; n; "filename" *verifies, ie compares the data of the just saved file on Microdrive n with the file still residing in RAM.*
MERGE * "m"; n; "filename" *merges the program from Microdrive n with the existing BASIC program in RAM.*
ERASE * "m"; n; "filename" *erases the program from the Microdrive cartridge in the specified Microdrive.*
FORMAT "m"; n; "name" *formats the Microdrive cartridge on Microdrive n and gives it the specified cartridge name.*
OPEN #x; "m"; n; "filename" *sets up a new channel "m"; n; "filename" and attaches it to stream #x. If a filename is not to appear on the catalogue, it can be protected by giving it a name beginning with the character whose code is 0. The file will not appear in the catalogue.*
PRINT #x, data *outputs the print sequence data to the specified stream. The print statement can use three forms of separators: semicolon prints nothing; comma takes the cursor to the next half line and apostrophe gives a new line.*
CLOSE # x *unlinks any channel from the specified stream after emptying the respective buffer.*
INPUT # x, data *inputs the variable from the specified stream.*
INKEY # x *returns a single character as a string from the stream if a character is available, and returns a null string if not.*
MOVE # x TO # y moves data from the source (x) to the destination channel or stream (y). This allows you, amongst other things, to make backup copies of data to another Microdrive and can also send complete files to the printer.



ERROR REPORTS:
Extensive with over 21 error reports
EXTRA FACILITIES:
Local area network connects up to 64 Spectrum workstations
Serial RS232 Interface with software selectable Baud Rates from 50 to 19200 text and binary files.
MANUAL:
Comprehensive
APPLICATION PROGRAMS:
Demo program including printer server and network game
CRITICISM:
Slow access time due to long search periods.
Short cartridge life, occasional tape jamming by pinch roller
Non-standard RS232 connector (9-pin D)

COMMENTS:
Still the cheapest fast storage system.
MEDIA:
Microdrive cartridge using continuous loop tape (5m x 1.5mm) with write protect tab. Price £1.95
TECHNICAL SPECIFICATIONS:
Number of drives per system: 8
Storage capacity (formatted) bigger than 85K
Sector size: 512 bytes
Recording density: approximately 500 bytes per inch
TIMING:
Formatting: approx 34 sec
Cataloguing: approx 10 sec
Loading a screen: approx 7.5 sec

PRICE:
1Interface 1: £49.95
Microdrive: £49.95
(But look for special deals!)

NEW NEW

TAPE TO DRIVE TRANSFER OF RECENT PROGRAMS

Yes SPECTRUM owners now have a **LOW COST** way of transferring many of even the **LATEST** high speed/jerky programs to their drives. You will be amazed! Other methods are expensive or very limited.

Firstly you will need our MD1b (for M/drive) or WD1b (for Wafa or disc drive) programs that give you the tools to convert programs. Includes the ability to chop/split bytes in one go, bytes mover, "VAL" creator and REMkill, make visible etc. FULL manual (highly rated by CRASH) with example transfers. **MD1b or WD1b cost £6.99 (on tape).** *'MD1b manages more programs' — Your Spectrum.*
To manage the LATEST programs you will also need our TC7 program to convert fast/jerky loaders to "normal". * Features baud rate measurer * Has jerky detector and MANY other backup features.
TC7 on tape £6.50. On M/drive cartridge £9.99 (incl MT6, and extra M/drive utility)

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SPECIAL DISCOUNT

TRANSFER PACK Buy our MD1b plus TC7 on M/drive cartridge plus INFORMATION SHEETS 1-3 for £15.50 (other drive owners get WD1b plus TC7 on tape plus sheets at same price).

UPDATE SERVICE: Send old tape plus large SAE to get a £2 REDUCTION. OVERSEAS: add £1 Europe, £2 others for each product. **SAE for enquiries.**

ALL OUR PROGRAMS CARRY A MONEY BACK GUARANTEE (not updates)

LERM, DEPT CR, 10 BRUNSWICK GDNS, CORBY, NORTHANTS NN18 9ER

INAUGURAL ANNOUNCEMENT. . . .

TECH TIPS is a new column for those interested in what happens beneath the Spectrum's keyboard. In future issues we'll reveal the inner secrets of the Spectrum, looking at both software and hardware in more detail than any other magazine has done.

On our voyage of discovery, hardened hacker Simon Goodwin **will check out multi-tasking, ROM bugs, thirty-six-colour graphics, microdrive enhancements, extra display pixels, extra colour resolution, supercharged scrolling, software speech synthesis, — plus a range of interface projects none of which will cost more than a pound to build!**

If you think the Spectrum has reached its limit, TECH TIPS will change your mind . . . . and don't forget — if you've made an earth-shaking discovery (or even a desk-wobbling one), or indeed if you have an opinion to put across, why not interface with TECH TIPS? Write to TECH TIPS at PO Box 10, Ludlow, Shropshire, SY8 1DB — but remember, we can't really cope with providing personal replies to questions. We'd need another minion!

VU-FILE TRANSFER TIP

Tech Niche proudly presents its very first 'playing tip'. Well, as our resident tipster frequently says, it's not really a playing tip — more of a user tip.

The chap who repairs our sick Spectrums enclosed a little gem when he returned the last one from the intensive care ward. Mike Hughes of **Rainbow Electronics** in Shifnal was tired of trying all the tips that he had discovered for converting **Psion**'s *VU-File* to run on a microdrive only to discover that they didn't work. Frustrated and dejected he settled down and wrote a conversion of his own, which we thought might be worth sharing with you — given the number of copies of *VU-File* out there.

(1) Load the code from the *VU-File* tape using Load 'C' CODE
(2) Save the code to micro-drive using SAVE *'m',1,'code' CODE 25086,5640
(3) now do RUN USR 0
(4) type in the basic listing below lines 50 to 8000
(5) save that listing using SAVE *'m',1,'basic' LINE 50
(6) now do RUN USR 0
(7) rewind the *Vu-File* tape
(8) type in LOAD 'T'CODE: SAVE*'m',1,'dump'SCREEN$ followed by ENTER
(9) start the tape and stop when the code has loaded; the SCREEN$ should now be on the micro-drive
(10) NEW computer
(11) now enter the 5 lines of BASIC below

```
10 BORDER 1:PAPER 1: INK 1
20 CLS
30 LOAD *'m',1,'dump' SCREEN$
40 PAUSE 20
50 LOAD *'m',1,'basic'
```

(12) save that listing using SAVE*'m',1,'run' LINE 10
(13) do RUN USR 0
(14) RUN ENTER and pray

BASIC listing:

```
50 BORDER PI/PI:PAPER PI/PI: INK PI/PI: CLS: LOAD*'m', PI/PI, 'code' CODE: GOTO 8000
100 INK 7: DIM f$(32): LET a=29785: GOTO USR 29721
1000 CLS: PRINT 'Save a file': GOSUB 6000: GOTO USR a
1005 ERASE 'm',1,g$: SAVE * 'm',1,g$CODE s,1: PRINT 'Press V to VERIFY or any other key to CONTINUE'
1010 IF INKEY$= "" THEN GOTO 1010
1020 IF INKEY$<> 'V' AND INKEY$ <> THEN GOTO 1200
1100 GOSUB 7000: VERIFY *'m',PI/PI,g$CODE
1200 GOTO USER a
2000 CLS: PRINT 'Load a file': GOSUB 6000: GOSUB 7000: LOAD * 'm', PI/PI, g$CODE s: GOTO USR a
3000 LPRINT f$ ( TO 32): GOTO USR a
6000 CAT PI/PI: INPUT 'Enter a filename:';LINE g$: LET f$ ( TO 10) = g$: LET s= CODE f$(11)+256*CODE f$(12) : LET l=CODE f$(13) +256*CODE f$(14): RETURN
7000 PRINT: PRINT 'On error GOTO USR a': RETURN
8000 RUN 100
```

And if anyone has any problems with the above listing — write to Jeremy Spencer, our very own Software Editor. He's the chap wot got it ready for our typesetter!

CORRUPTION?

Dear Sir
The September issue of CRASH carries a review of my company's product, BLAST.

From you review it is quite obvious to us that you had the misfortune to receive and review a corrupt copy of BLAST. We did have some early tape duplicating problems, and a small proportion of tapes were corrupt.

This is of course a problem for us in that we have received a poor review as a result of some very bad luck! In view of these rather special circumstances, we would be very grateful if you could look at the enclosed product (BLAST, Issue 3), which we have checked, and explain the situation in your next Issue.

Let me apologise once again for sending you the corrupt copy. The duplicating problems have now been ironed out and in addition several improvements have been made to the compiler.

A M Wilkes
Technical Director, Oxford Computer Systems (Software) Ltd.

●*It seems very unlikely, given the Spectrum's tape checking, that all the problems we encountered with Issue 2.0 of BLAST could have been caused by duplication errors.*

After we had written the review, a copy of BLAST version 3.0 was sent to us a couple of days before the review pages were due at the printers. As we stated in a footnote to the column, BLAST 3.0 had had a number of the bugs fixed, but doesn't appear to live up to its specification.

At least three versions of BLAST have been offered for sale at £24.95 to our knowledge: 1.0, 2.0 and 3.0. We cannot recommend that people purchase a copy of BLAST that is lower than issue 3.0. People who have spent £24.95 on an early version of BLAST, like OCP, have a problem and may be considered to have suffered some very bad luck!

Last month, we were assured that people who have an early version of BLAST can return it to OCS for an update, but it would be nice to hear that the company was contacting as many of its customers as it has records for, to make sure they have a version that works.

We would be interested to hear from CRASH readers who have tried out BLAST, meanwhile, over to you Mr Wilkes!

TECH TIPS

CHART APPEAL

Stuart Bruce from Cumbria has been pestering Lloyd to start a TECH NICHE Chart — arguing that we have charts for adventure games and the CRASH Hotline, but nothing for software which doesn't belong in the games mainstream.

Here are Stuart's votes for fifteen of his fave utility programs, all marked out of ten . . . any comments?

THE STUART BRUCE TECH NICHE HOTLINE

Tasword Two	*Tasman*	*10*
Tascopy	*Tasman*	*7*
Tasprint	*Tasman*	*8.5*
Tasmerge	*Tasman*	*8.5*
Masterfile	*Campbell Systems*	*8.5*
Leonardo	*Creative Sparks*	*5*
Melbourne Draw	*Melbourne House*	*5.5*
The Designers Pencil	*Activision*	*-10,000 (!)*
FP Compiler	*Softek*	*5*
IS Compiler	*Softek*	*4.5*
Supercode 100	*CPS*	*8.5*
Editor Assembler	*Picturesque*	*6*
Greenfingers	*Custom Data*	*4.5*
Dietron		*0*
Vu-file	*Sinclair/Psion*	*4*

DEREK BREWSTER'S

Adventure Trail

A CRASH Smash

BORNE BY DESIGN !

Quilled games began to surface in 1984. *The Quill* utility from Gilsoft was a mixed blessing. On the one hand it allowed programmers to develop complex programs without the need to worry about how these programs might be implemented. This improved access allowed people with imagination and flair to produce original software. On the other hand *The Quill* gave access to many dabblers who, quite frankly, should never have produced software. Their heads full of nonsense put about by the frivolous press about easy money, they thought writing software was much easier than it actually is.

Writing a computer game is no different to writing any other game, whether for a board or a television studio. It must possess enough fine qualities to make the player actually want to get involved and to spend some time getting to know the rules. Once the player has finished playing he/she should wonder at how clever the whole game's design was and how well it played.

Although *The Quill* imposes severe restrictions upon the design of a game it is clear from analysing the charts that this is not such a fundamental factor in determining the success or failure of a Quilled adventure. *Hampstead* was a Quilled game and a chart success. The reasons for this seemingly anomalous situation lie in that game's refreshing originality and cutting humour (notice cutting humour, not slapstick which was surpassed soon after Laurel and Hardy and only lives on in BBC comedies). *Tower of Despair* did not make the charts but it had an imaginative story and was well laid out with a fine redesigned character set.

The factors which link good adventures are borne of the thought, design and discussion which preceeds their implementation. Even in the case of an all machine-coded adventure, the design stage takes more time than the coding.

THE TOUCHSTONES OF RHIANNON

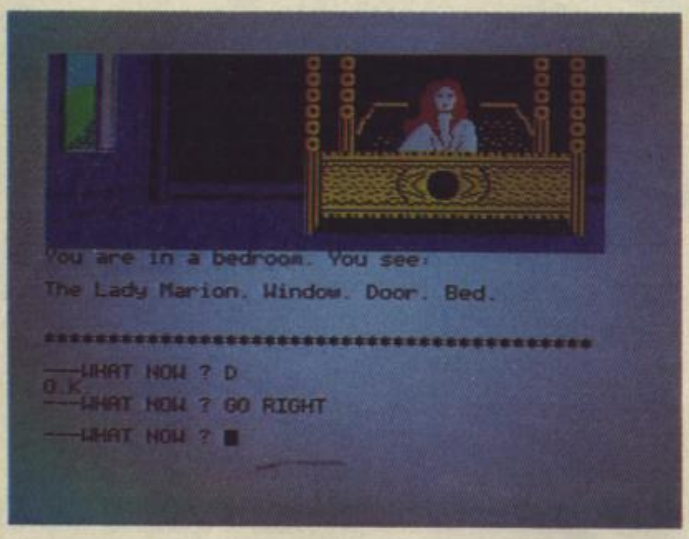
Producer: Adventure International
Price: **£9.95**
Language: **Machine Code**
Authors: **Mike Woodroffe, Brian Howarth, Teoman Irmak**

If you've ever wondered how long it takes to write this column the answer is very simple — a long time. Between writing programs of my own, playing these here adventures enough to form some opinion on them and writing something which appears coherent, there's barely enough time to laugh at Top of The Pops. But all's well this late Thursday evening as it's time to say one or two nice words about an awfully good program. *Touchstones of Rhiannon* is an adventure of Robin of Sherwood and is based upon the TV series by Richard Carpenter, yes, that's right, the one with the haunting Clanad song. Even if, like myself, you more monitor TV rather than watch it I'm sure you'll recognise heart-throb Michael Praed who played Robin in the HTV series on the cassette cover and may well be interested in the full colour poster offer from Adventure International inside.

If you buy this game, and, judging by the success of *Gremlins* from the same people, many of you will, let me forewarn you of an unnecessary irritation on loading. After about two minutes of loading the screen puts up some information. Unfortunately no loud buzz or other warning draws your attention to this fact and it is so easy to let the tape run on without you stopping it that many of you will be caught by it even after reading this. This tip is for those who'd rather read a free newspaper than sit and watch a game load.

When the game loads you are confronted with a dire situation with you, Robin, your accomplices Will Scarlet and Much the miller's son locked within Nottingham Castle. The layout of the screen is pure Brian Howarth with the lower scrolling input part separated from the picture, short location description and things you can see above. When picking up an object it disappears from the list of items you can see and the screen gives a flash as it has done ever since the days of Digital Fantasia. Anyway, enough of the rudiments of adventuring and on to the story, one which I liked as I think the story of Robin of Sherwood is very much suited to the medium of adventuring.

The Prophecies of Gildas have it that a Hooded Man shall come to the forest of Sherwood and meet Herne the Hunter, Lord of the Trees, and do his bidding. The power to wield great good or evil shall be his and the guilty shall tremble. Over one hundred years after the Normans



conquered England rebellion still flared like embers from a dying fire. One such rebellion was led by Ailric of Loxley who believed in the ancient legend of Herne the Horned God of the forest and his son Robin who would lead the English against the Norman tyranny. At the time of this adventure Ailric is dead, Robert de Rainault is High Sheriff of Nottingham, King Richard is busy with the crusades leaving the evil Barons to run the country and it would seem all rebellion is over. However, none had bargained for the appearance of the Hooded Man. We join the Hooded Man in a cell as he has been caught breaking the law of venison by Sir Guy of Gisburne and now awaits a terrible punishment. You need to escape from there and from Nottingham Castle as quickly as you can (in Robin Hood style, in fact) whereupon Herne will appear and give instructions.

Due to the vast amount of memory used to serve up the superlative graphics the range of vocabulary the program can accept is limited. Having said this an imaginative person may soon be out of the castle and free to roam Sherwood forest within a few moves. I'd say that over all the difficulty of this adventure is about right as it is no pushover but not so difficult as to make you want to forget the whole thing. This game has you thinking hard about its problems long after you've switched off the power to the computer. One curious aspect of the program's input analysis is its tendency to ignore most of the input it does not understand to the extent that you soon realise that nothing has happened unless something in the top half of the screen has changed. This rather minor shortcoming is easily offset by a very good EXAMINE command which proves both useful and essential if Robin is to make any headway. The characters are wooden, but, once again, what can you expect in a program which displays graphics that make you proud to be a Spectrum owner?

Well, leaving the best till last, what about the graphics? In short they are astonishingly good. Imaginative and highly artistic pictures greet just about every frame and even the ones depicting Sherwood forest, which may have become dull, really give the feeling of wandering through a vast expanse of trees. Intelligent design is the order of the day.

Robin of Sherwood and the *Touchstones of Rhiannon*, unlike many other TV tie-ins, is a superb implementation of the original. The graphics are nothing short of stunning and the plot maintains your interest throughout. I liked *Gremlins* a lot but rather wished I had seen the film. However Robin of Sherwood is a story familiar to everyone and this game is a magnificent interpretation of the theme. If you liked Gremlins, or if you don't normally play adventures, take a look at this one.

COMMENTS

Difficulty: testing
Graphics: the best!
Presentation: good (but white glares on a colour TV)
Input facility: sentences
Response: quick
General rating: **an enjoyable challenge**

Atmosphere 9
Vocabulary 6
Logic 7
Addictive quality 10
Overall value 9

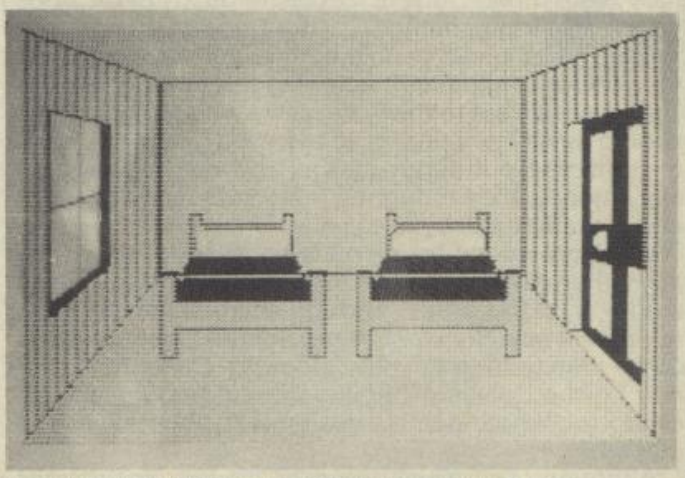
THE SECRET OF ST. BRIDE'S

Producer: St. Bride's
Price: **£6.95**
Language: **Quill & Illustrator**

If you cast your mind back some time to when a curious little item ended the news about some school in Donegal where grown women could return to their idyllic school days then you might quickly get the idea of what this game is all about. Well, the erudite mistresses of that noble establishment, St. Bride's School for Young Ladies, have begun a foray into the world of adventuring starting with this game, which gives some feel of what a stay at the school might entail. The feel of the game is reminiscent of those faintly Victorian Boy's Own stories I read when young. Presumably, when I was reading all about Jennings and Derbyshire all them giggly girls were absorbed in their own feminine versions, a taste of which can be sampled here.

On the front of the Prospectus is the Latin inscription *Semper Ad Lucem* which is very apt as I haven't the foggiest as to what it might mean. Perhaps playing this game might sharpen my intellect and rekindle that desire to learn and retain irrelevant facts. Anyway, the gist of the thing is that St. Bride's is a small private boarding school for girls between the ages of 13 and 18, set in two acres of grounds on the edge of the little fishing village of Burtonport in the heart of the Rosses on the west coast of Ireland. The area is one of outstanding natural beauty containing over a hundred lakes. The house commands views of the Atlantic to the west, while to the east the rugged countryside sweeps away to the distant Derryveagh Mountains. If you still don't know the area I'm on about then clearly you must have been educated in a crummy comprehensive and could do with a bit of the character, poise, health, and happiness from which the girls benefit at this school. There again, opening something called an atlas wouldn't do much harm either.

In an editorial a few months back I commented on how it might be a good idea to centre an adventure on somewhere that really exists and it looks like this is what we have here. This game explores the imposing Victorian building which now houses St. Bride's. Studying the curriculum I see that not much has changed since Victorian times as we are told that while Elementary Latin and Grammar are high on the curriculum, science, apart from Botany is not so well served. There again, maybe schools have got it right — when did studying science ever earn anyone any money in the headlong dash for the material goodies? You'll be relieved to note that although the school day officially begins at 7.30 with the rising bell, rising is not obligatory until breakfast at 8.15. Nice of those mistresses, eh?



Unlock the schoolgirl secrets of the dormant dormatory at ST BRIDES, an adventure in the jolly hockey sticks genre.

So what part do you play in this adventure? Well you play Trixie Trinian, a girl just out of school whose come to St. Bride's for a school holiday (?!). You soon learn that this school is how it would be were it fifty years ago. All the staff are convinced it's the late twenties (although there is some confusion over the exact date), as are your fellow pupils. Much of your early explorations are simple enough but there comes a stage, after about 12 locations when a bit of thought is required. The authors give some clues to the complexity of this game when they concede that

many will no doubt find the word which finishes the game but few will uncover the remaining 50% which leads to the coveted amulet. A St. Bride's certificate of merit awaits the player who can uncover the word but the discovery of the amulet entitles the owner to an A Level in Adventuring and a free copy of every game St. Bride's produces.

The nuts and bolts of the adventure are assembled around Gilsoft's *Illustrator* and *Quill* and entail rather slow full screen graphics which, rather disappointingly, are redrawn with every R for redescribe. This, not unexpectedly, tends to slow things down. (If you are not into adventures and you're wondering what the heck I'm on about REDESCRIBE sticks up on the screen the location description ie, where you are at, and is necessary because often it scrolls up and off screen as you input your commands). Another niggle is the almost totally inactive EXAMINE. Niggles apart, this isn't such a bad adventure and creates a lot of atmosphere. I just wish I'd gone to public school, learning Latin for a few years is a small price to pay if it buys a cushy job in the Civil Service. That reminds me — I haven't had a cup of tea for quite a while — it's not Darjeeling, it must be Victorian Tea.

COMMENTS

Difficulty: easy to begin with, then more difficult
Graphics: average
Presentation: highlights etc
Input Facility: v/n
Response: instant
General Rating: Interesting

Atmosphere	7
Vocabulary	6
Logic	7
Addictive quality	6
Overall	6

LONDON ADVENTURE

Producer: Fridaysoft
Price: **£4.95 (£6.75 microdv)**
Language: **Quill**

Fridaysoft was formed by six Spectrum adventure enthusiasts who felt it was time that adventures moved away from the usual fantasy settings with their demonic bunch of hobgoblins, dragons and other things which have adventurers for supper. This adventure has been designed to pertain somewhat to the real world as it tries to keep reasonably geographically consistent with its chosen theme — London (you know, that place south of Milton Keynes.)

They say that a man who is tired of London is tired of life but who ever said this obviously never got out of the taxi. What better than to put your feet up and visit the sights via a computer. This game has over one hundred locations most of which will be familiar even to those who thought Middlesex was a mid-life crisis. The aim of the adventure is to find the combination of a safe deposit box. The numbers that make up this combination are hidden within locations and objects you find. Unless you complete the game within a certain number of turns, a shadowy figure will prevent you claiming the inheritance. What a meanie!

See if you can guess where abouts in London this description relates to: 'I am on board the Cutty Sark. The well scrubbed deck reflects the sunlight. The smell of pitch fills my nostrils. I can here the sighing of the wind in the lofty rigging. I can see a naval tableau with figures clad in a costume of a bygone era. I can see a sword in a scabbard.'

London Adventure is a very long text only Quilled game. The fact that it is based on a real geography makes the game very interesting. The plot is commendably lucid and would keep any adventurer well absorbed.

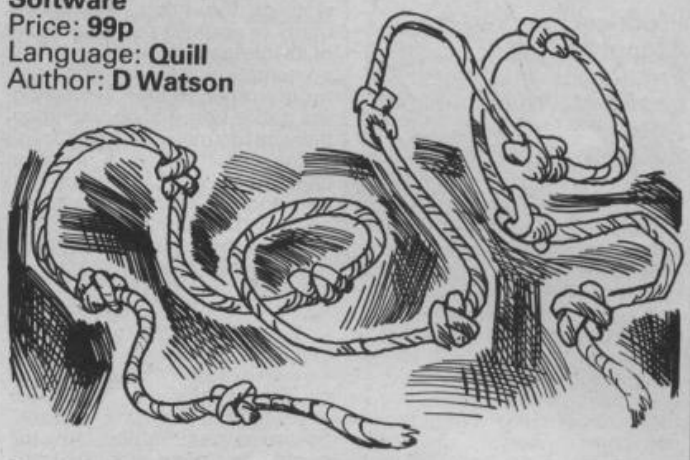
COMMENTS

Difficulty: fairly easy
Graphics: none
Presentation: poor
Input facility: v/n
Response: instant
General rating: London on a plate

Atmosphere	6
Vocabulary	5
Logic	6
Addictive quality	5
Overall value	6

A TANGLED TALE

Producer: Pocket Money Software
Price: **99p**
Language: **Quill**
Author: **D Watson**



One of the strangest manifestations in software in the last year or so is the vast range of prices available to the consumer. The packaging and quality of tape may be the same both for an £8 game and a £2 game, it being the programming which is thought to determine just how much the public are willing to cough up. There is no parallel in either books or records as you can guarantee that, say, an LP in the shops at £2 was once sold at the usual price when it first appeared and the artist all the rage. So what on earth can you make of software on offer at the measely sum of 99p when the quality of programming is not bad and even the printing on the inlay is neat and attractive? Just as I was working on the sums as to whether such a venture could possibly make any money I was astounded to see that an offer on the inside of the inlay card explains how to obtain a free blank cassette from PMS. The mind boggles.

Two aspects of this game impressed me when I considered the price. One is the programming which is not bad and compares favourably to games three times the price, and two is the design of the game which is sufficiently different to hold the player's attention for some time. I think clever implementation of a novel idea is pretty amazing in a game which retails at 99p.

The all pervasive flavour of this adventure is that of Lewis Carroll, an Oxford mathematics don who wrote *Alice's Adventures in Wonderland* in 1865, *Through the Looking-Glass* (1872) and the nonsense poem *The Hunting of the Snark*. The superb loading screen will be strangely reminiscent to those who have read the Alice books. The title of this adventure must refer to the piece of string you are carrying in the first frame. Examining it you find it has ten knots. To untie these you must solve ten puzzles which lie beyond the five characters you meet: Humpty, Caterpilla, White Knight, White Rabbit and Mad Hatter. Your task then is to find and help Alice to the Eighth Square to be queened. Movement is very simply Left, Right, Up, or Down but what isn't so simple is the puzzles set by the characters. Humpty comes up with 'I don't admit women are faint' which will only make perfect sense to you if you are ready for the loony bin. Needless to say I could only make partial sense out of it but I've met one or two people in the software business who could wax lyrically with this one.

And what might you make of this one: He thought he saw a garden-door that opened with a key, he looked again and found it was a double rule of three. 'And all its mystery,' he said, 'is clear as day to me!'.

Tangled Tale is an exceptionally good buy for only 99p. It will be especially enjoyed by those who know something of Lewis Carroll's works and the magical world they create. The program's simple structure and imaginative graphics will appeal to the young and yet the width of response to anything you type in will keep the not-so-young happy as well. *Tangled Tale* is a cheap tonic for a crazy world.

COMMENTS

Difficulty: the puzzles are difficult but this does not stop play
Graphics: good colourful, imaginative graphics
Presentation: super
Input facility: v/n
Response: instant
General rating: very good value

Atmosphere	7
Vocabulary	7
Logic	none
Addictive quality	6
Overall Value	8

THE RATS

Producer: Hodder & Stoughton
Price: £7.95
Language: machine code
Author: Five Ways Software

There is one thing which troubles me about writing this column. I have to weigh up how much I should go over the same old points I've made in the past and balance this with my rather low boredom threshold. However, to say 'for my views on this subject see CRASH blah blah issue pages x to z', seems too reminiscent of those pompous, stuffy academic reports so I think I'll settle for a little rehashing of old thoughts.

The point I'd like to make here is that publishing companies should be careful when producing computer software. This little industry has quickly come of age and the matching of what the public wants to see on a computer to what the public gets has come a long way — some outstanding software has been produced. Programming skills on the Spectrum have improved to the point where there's little room for programming innovation; just about everything the Spectrum can possibly do, it now does.

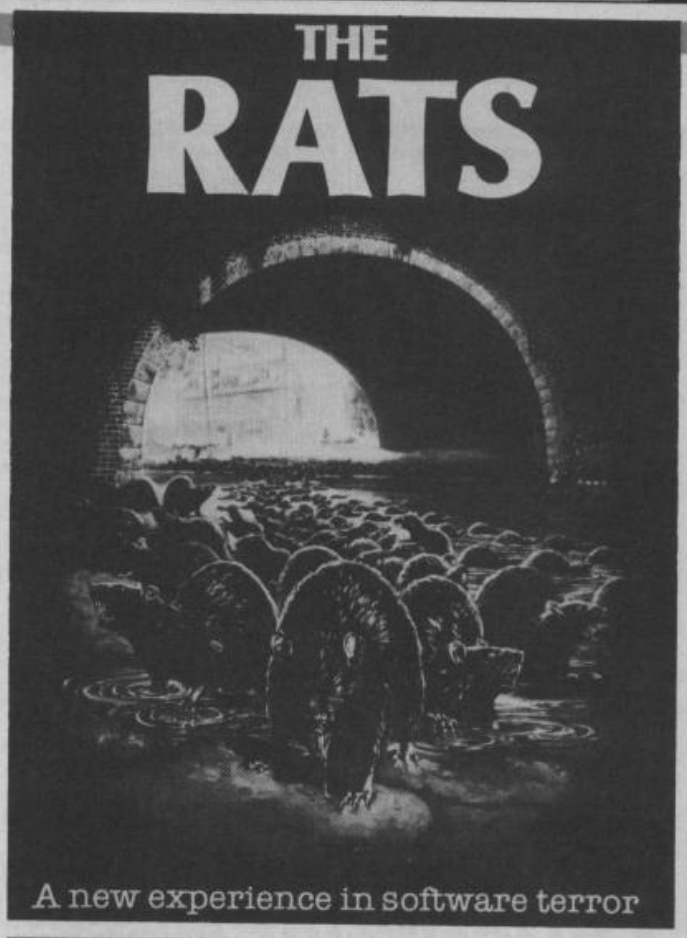
If programming expertise is near its zenith then program design and implementation aren't far behind. It is in these fields that software producers must be very careful. When designing a board game, the questions at the end of the day are: can someone actually play it, given the instructions; and if they can play it, is it any good? The same must go for computer software. Can the games player play the computer game and if the player can, what does he/she think about it? With this game *The Rats*, I can barely answer the question 'what did I think about it' because I could hardly play the darn thing and, after an (unfortunately) long while, I didn't much care one way or the other. No doubt many of you will buy it because of its interesting theme and slick presentation. It looks great. As a programmer, though, reviewing the game was disappointing as it drops too many own goals.

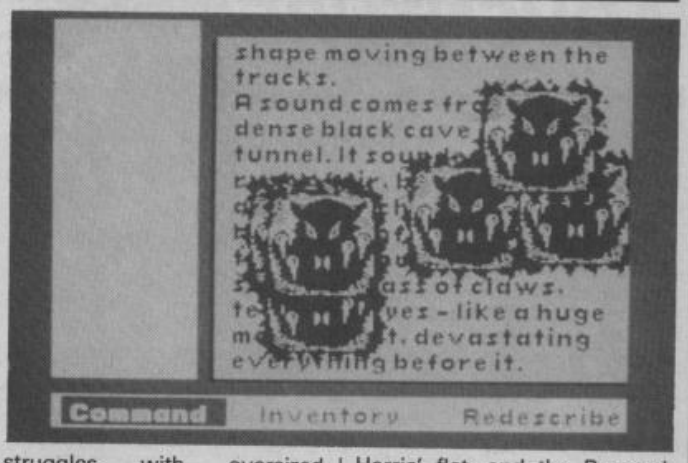
The way the game loads is clumsy and downright unfriendly. The instructions are all over the place and have that far from endearing quality that has even the most clear-headed reading paragraphs time and again. It interleaves garbled loading instructions with details on game play which don't fully explain exactly what you have to do. Playing the game does not make light of these instructions. For example, the system for deploying troops is clumsy and once they are deployed it's difficult to keep track of them. I'll admit you could direct many of these comments at other prominent pieces of software — it's just that *The Rats* seems to embody all the worst aspects of clumsy design and implementation.

The problem of sensible input has been successfully tackled in the game by reducing the number of options available to the player at any one point to, at most, two or three. The result of this system is sensible input sure enough - the program always understands what you want to do as it itself offers the options - but sometimes the actions you are channelled into do not make much sense. It is a game for much to-ing and fro-ing and exploration as new avenues can appear almost unnoticed.

The Rats is based on the chilling bestseller by James Herbert. Although it is not necessary to read the book to enjoy the software I would guess reading it would greatly enhance the player's understanding and sense of purpose. The game details your struggles with oversized rodents, which you attack through the eyes of minor characters such as Paula Blakely, and major characters like Harris, Howard and Foskins; a resourceful and courageous hero, a young rat scientist, and an Under-Secretary of State respectively. These characters are introduced in a similar way to films eg Close Encounters. The game might cut away from Paula Blakely struggling with the rats on a very personal scale to Foskins whose job is to coordinate London's Emergency Forces from General Headquarters.

Rat-Kill, Police, Fire and Military forces can be deployed against the rodents along with equipment such as protective suits, chemical gas, flame-throwers, electric stun pods and Anti-Rattus gas. Marked on the screen map of London (which, unlike the rest of the presentation, is scruffy) is GHQ, Harris' flat, and the Research and Development Centre where the important work on the origin, nature and vulnerability of the super-rats takes place at the greatest possible speed as the security forces seem ill-equipped to quash the rodents' surge across London.





COMMENTS

Difficulty: may take some time to halt the rats
Graphics: average
Presentation: good
Input facility: option-driven
Response: good
General rating: looks nice (apart from scruffy London map)

Atmosphere	7
Vocabulary	7
Logic	7
Addictive Quality	7
Overall value	7

ADVENTURE TRAIL REVIEW RATINGS

ATMOSPHERE: reflects quality of location description and graphics and how credibly characters behave.

VOCABULARY: the completeness of the vocabulary and friendliness of response. All words and associated words (objects etc) in location descriptions should be included.

LOGIC: reflects the logic of the problems encountered and whether or not you are likely to be killed without warning or chance of escape.

DEBUGGING: indicates the level of crashproofing. A program should not be crashed simply by making an incorrect entry or by pressing an unfortunate combination of keys.

OVERALL: general rating based on price and the other ratings BUT NOT AN AVERAGE OF THE OTHER RATINGS.

Preview of TERRORMOLINOS (Melbourne House)

. . . BUT THERE'S NO RAIN IN SPAIN

AFTER one of the worst British summers on record you might think nothing could be better than to gather the family around an adventure which languishes in the hot Spanish sun amongst golden beaches gently caressed by clear blue seas. But that wouldn't be taking into account the authors of this piece — none other than the social lampooners and society satirists who had us as pleased as punch at our heady social climbing amongst the denizens of that much sort after London suburb, *Hampstead*. Well, Hampstead is very nice but it's a lot cheaper to read the Guardian in the likes of Hartlepool and so it's a lot more reasonable to live in Slough for fifty weeks of the year in order to afford one of the great luxuries of our time — a package holiday in the sun. And so we join the family in their semi in Slough one sunny Saturday morning waiting for the taxi to whisk the assembled holiday-makers off to the airport and fun unbounded. But just one or two final arrangements need to be settled, like has Beryl, the wife, collected the little ones, Doreen and Ken ready for the taxi and is it time to start packing. But where are the tickets, passport and camera? Come to think of it, where's the suitcase?

As you can see our family are taking a rather too relaxed attitude to their holiday — even if relaxation was the idea behind getting away from it all. But not in this case as this extract from the Kwikhol guide to Spain shows; 'Oh to be in Terrormolinos , with its overcrowded beaches, shark-infested waters and hotels modelled on our very own Ronan Point!' But surviving the two week holiday is not enough; you must return with ten snapshots to prove what a super time you had wrestling with bulls and grippy tummy.

Saucivision enables the essence of saucy seaside postcards to be transferred to the screen when you make a fatal error or when you successfully develop one of your photographs. Sadly, these were not included in my preview game and so I hope to review this game fully next month. (There again, with a holiday like this it might be better to leave the snaps in Spain)!

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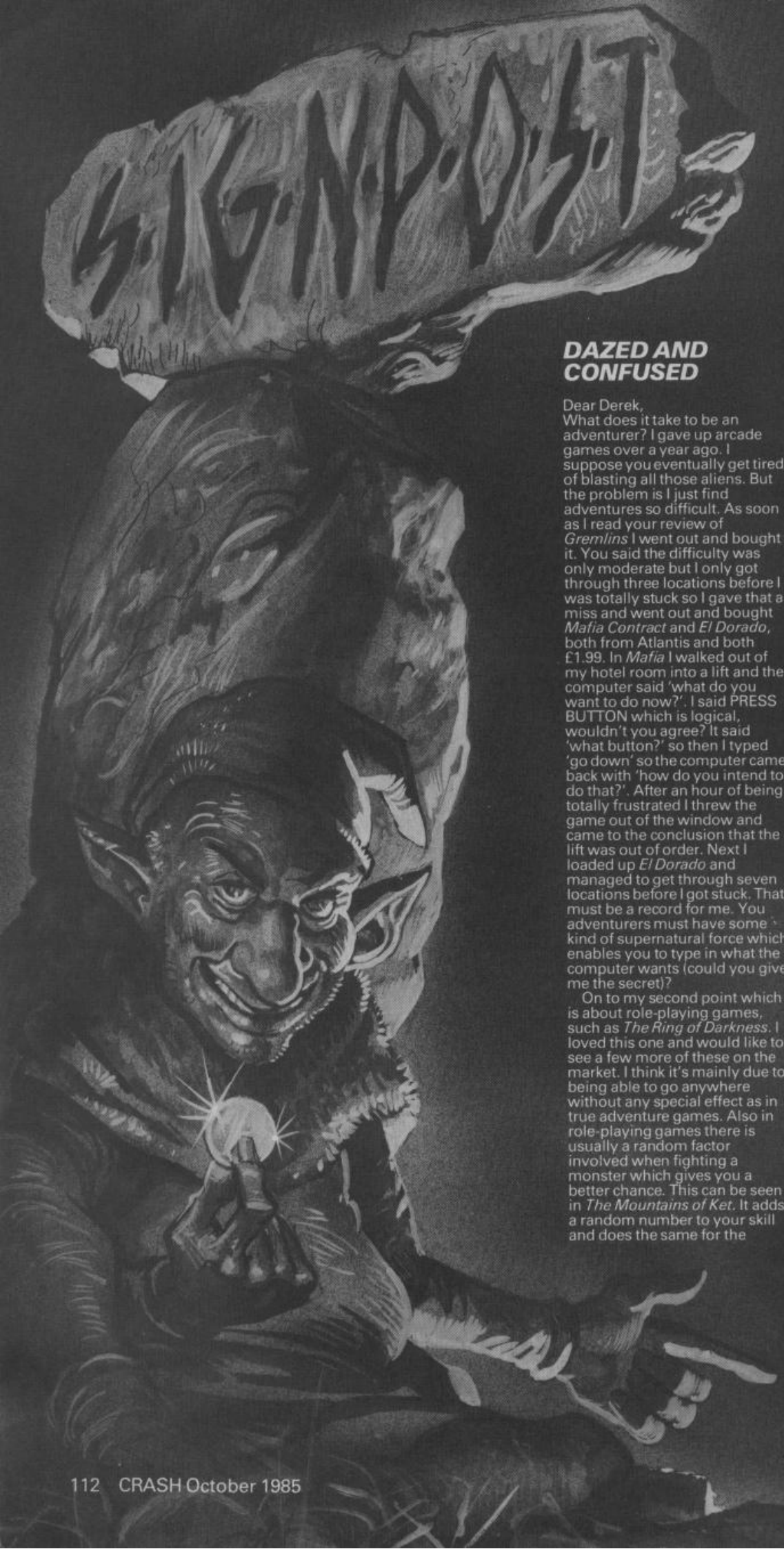

DAZED AND CONFUSED

Dear Derek,
What does it take to be an adventurer? I gave up arcade games over a year ago. I suppose you eventually get tired of blasting all those aliens. But the problem is I just find adventures so difficult. As soon as I read your review of *Gremlins* I went out and bought it. You said the difficulty was only moderate but I only got through three locations before I was totally stuck so I gave that a miss and went out and bought *Mafia Contract* and *El Dorado*, both from Atlantis and both £1.99. In *Mafia* I walked out of my hotel room into a lift and the computer said 'what do you want to do now?'. I said PRESS BUTTON which is logical, wouldn't you agree? It said 'what button?' so then I typed 'go down' so the computer came back with 'how do you intend to do that?'. After an hour of being totally frustrated I threw the game out of the window and came to the conclusion that the lift was out of order. Next I loaded up *El Dorado* and managed to get through seven locations before I got stuck. That must be a record for me. You adventurers must have some kind of supernatural force which enables you to type in what the computer wants (could you give me the secret)?

On to my second point which is about role-playing games, such as *The Ring of Darkness*. I loved this one and would like to see a few more of these on the market. I think it's mainly due to being able to go anywhere without any special effect as in true adventure games. Also in role-playing games there is usually a random factor involved when fighting a monster which gives you a better chance. This can be seen in *The Mountains of Ket*. It adds a random number to your skill and does the same for the monster and if you win that combat round the opponent loses some stamina points. In most adventures you are allowed to either kill the monster outright or it kills you eg the Gremlin in the bedroom which throws darts.

The new adventure by Level 9, *Red Moon*, looks good. Are you going to review it sometime?
David Salter, Calverton, Nottingham

Red Moon *should have received its dues by the time you read this (and my red balloon has deflated somewhat now). As for adventures being difficult — you're not joking. There are times when I wonder why I took this job on but at other times it's tremendously rewarding just reading the mail you send in. Several times my opinion of a game has risen on reading mail from CRASH readers.*
DB

BEST OF BOTH WORLDS

Dear Derek,
With the increasing amount of so called 'arcade-adventures' on the market, it is becoming harder and harder to define what exactly an arcade-adventure is. To me, the whole point of an arcade-adventure is that it combines the best of adventure games and arcade games. So, what are the best parts of an adventure game?

Many people would say that with a good adventure game there is atmosphere and suspense in it. Thus these two qualities draw the player more into the game, and away from the keyboard. In this way the player is more part of the game, and he or she is more aware of dangers. Games with good atmosphere are the Level 9 adventures. Also adventures require strategic thought and you have to plan your decisions carefully. These are the two main good aspects of an adventure game. Others may disagree, but in my eyes these two must be in any adventure.

Now, what are the best parts of an arcade game? I myself have found three things which are good about arcade games. Firstly, there are the brilliant graphics, then the very sophisticated programming techniques (though I am not suggesting adventures are lacking in such techniques) and lastly exciting action.

So, in short, an arcade-adventure, a good plot to arouse strategic planning, brilliant graphics, mind blowing action and good programming techniques, the latter not directly important to the player.

Obviously in an arcade-adventure you must see your character on the screen with the host of other monsters etc. But the problem is this: should the player's adventurer be controlled via text input or joystick input? In *Valhalla* the player's character is controlled by text input, but in *Avalon*, Maroc the Mage is controlled by

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a joystick. This is the difference between an adventure and an arcade. No-one can truly claim that *Valhalla* is a real arcade-adventure, but nor is it an adventure in the true sense. It is in between. Legend have described it as an adventure movie, which to me is a very apt description of the game. So, an arcade-adventure must be joystick controlled otherwise it becomes an adventure movie and not an arcade adventure.

To sum up, we must know why arcade-adventures are becoming more and more popular. Apart from the faithful adventure nuts who solely believe in text only adventure games, adventurers are probably becoming bored with repetitive adventures, and the arcade junkie now wants something more taxing than Pac-Kong.

I welcome comments from yourself and other readers.
Guy Walters, Beaconsfield, Bucks

I'm sure you're right about arcade players wanting more involved games than the old arcade style but I'm not sure that adventure players are going in the other direction. Whilst many adventures are unimaginative, using old worn out themes, the best games are now better than they ever have been. I think adventures may merge more with strategy games and have a greater level of character interaction but I can't see then developing along the lines of arcade-adventures. To me a lot of the atmosphere is lost when you see your small stilted character wobble about its unreal world.
DB

WHAT'S IN A NAME?

Dear Derek,
I am writing to ask you why you reviewed the *Fourth Protocol* but not *Shadowfire*? Surely both of these are icon-driven and should have been reviewed by the same person. At least you should have passed on some comments about the game. The same goes for *Dragontorc* and *Dun Darach* as it would be interesting to know what you thought of the games.

I also have a few suggestions to make for your Adventure Hotline chart. On it why not just mark whether it is a text adventure, graphical adventure, icon-driven or arcade-adventure so we know what type of game it is when referring to it.

I also believe you should include in your Adventure Trail ratings many ratings from the normal system as well. In other words, for the *Fourth Protocol* it have would an Atmosphere, Logic, Graphic rating etc. but also Use of computer, Getting started and Value for money. This may mean the number of ratings would vary but would give a truer representation of the game's playability. Also all your ratings should be in percentages.
Andrew Thake, Bishop's Stortford, Herts

There is one very simple reason behind me not reviewing the likes of Shadowfire *— I wasn't sent a copy from the powers that be down in Ludlow. One aspect of this problem which may not be so apparent from the reader's angle is the posturing that may be a part of a company's approach in exposing a game to the market through the magazines. In other words, a company may not want a game to be thought an adventure but a strategy or vice a versa. In many instances this posturing makes little or no difference to the way in which the game is received but who would take away this little bit of fun from the advertising people?*
DB

SHERLOCK TIPS

Dear Derek,
Here are some tips on *Sherlock* by Melbourne House. Firstly, on day one follow Glenn White's tips in issue fifteen of CRASH. When you are following Lestrade about and he interviews the Brown's staff, say to the Cook 'TELL ME ABOUT BASIL PHIPPS'. This will give you a clue. When Lestrade and Strater (and yourself and Watson) find the unconscious policeman, Lestrade will go back to London to apprehend Major Percy Ffoulkes. At this point return to London yourself. If you have not got the chinaman's disguise then return to Baker Street to get it as it is needed to prove the major's innocence.

Hail a Cab and go to Sidmouth street (the major's home) and wait until about 11.30. The major will arrive and enter his house for a short while. Then he will leave, hail a cab and go to Slater Street. Quickly hail another cab and follow him. In Slater Street you will find a hidden door. You can only go through this door wearing the chinaman's disguise. When you go through the door you will find that you are in an opium den with Major Ffoulkes. Remove the disguise and the major will confess to his opium addiction. Leave the den and you will find Lestrade. Say to Lestrade 'THE MAJOR IS INNOCENT'. He will ask for proof, then say 'THE MAJOR VISITED THE OPIUM DEN'. Lestrade should accept this and tell you he will visit Leatherhead again tomorrow.

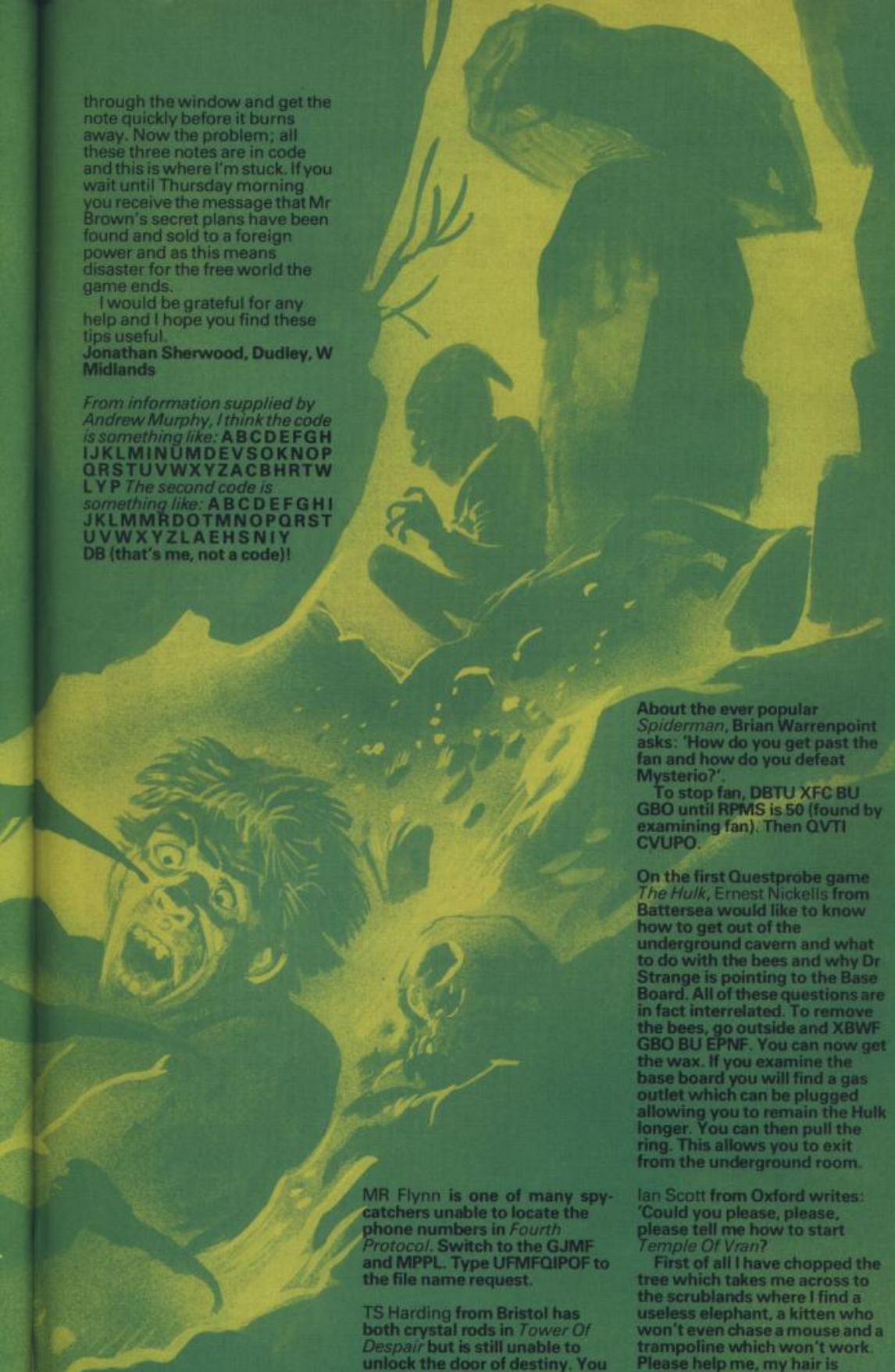
At this point it should be about 12-1 o'clock, just enough time to nose around Leatherhead on your own. Return to Leatherhead and go to the Jones' house. Closely examine the bookcase. Now go to the Browns' house and open the drawer in the desk. It will be empty but closely examine it. Go to Daphne and say 'TELL ME ABOUT TRICIA FENDER'. Now visit Basil's Leatherhead home and enter his bedroom. Examine the piano and gramaphone and closely examine the bed and window. At this time you can open the safe, goto the station and wait until 9:00 for Lestrade to arrive. Follow Lestrade again and when you get to the sandstone bridge, closely examine the stream. After this Lestrade will go to the Jones' house, but nothing important will happen so go and wait for a train to London. In London hail a cab and go to Tricia's address. At this time the door should be unlocked. Inside the house you will find Tricia and another safe. Open the safe and examine the contents. You must not dally however, as after a while Tricia will leave the house and you will be locked in! Go to Parliament Street (Scotland Yard) where Inspector Lestrade should be. Now say these to him in order: 'TRICIA FENDER HAS THE PLANS' 'TRICIA FENDER BLACKMAILED MRS BROWN' 'MRS BROWN KILLED HERSELF' Now leave him and go to Camden Street, which is Basil's home. Wait outside the window until after ten at night and Basil should open it from the inside. Enter through the window wearing your disguise or you will be shot. Inside the house you will find two notes. (One is hidden and requires a 'CLOSELY EXAMINE' to find it.) Do not stay too long or you will still be shot. Leave the house and wait until about 4:50 the next morning when you will get a message that Basil receives another note through the post. Keep looking through the window until Basil disappears and you see a burning note in the fireplace. Go

through the window and get the note quickly before it burns away. Now the problem; all these three notes are in code and this is where I'm stuck. If you wait until Thursday morning you receive the message that Mr Brown's secret plans have been found and sold to a foreign power and as this means disaster for the free world the game ends.

I would be grateful for any help and I hope you find these tips useful.

Jonathan Sherwood, Dudley, W Midlands

From information supplied by Andrew Murphy, I think the code is something like: **ABCDEFGH IJKLMINUMDEVSOKNOP QRSTUVWXYZACBHRTW LYP** *The second code is something like:* **ABCDEFGHI JKLMMRDOTMNOPQRST UVWXYZLAEHSNIY DB (that's me, not a code)!**



On the ever popular *Gremlins*, Barry Wood from Wirral asks: 'Please could you tell me where to find Gizmo. Also, I would like to know if you can go down the laundry chute in the kitchen. I would also like to know where the knife is and can you open the mailbox?'

To find Gizmo and the knife, get the peltzer, go to the LJUDIFO, QVTI CVUUPO (several times, things will happen)! I don't think you can open the mailbox or go down the chute.

MR Flynn is one of many spy-catchers unable to locate the phone numbers in *Fourth Protocol*. Switch to the GJMF and MPPL. Type UFMFQIPOF to the file name request.

TS Harding from Bristol has both crystal rods in *Tower Of Despair* but is still unable to unlock the door of destiny. You should KPJO SPET and then JOTFSU SPE JOUP UIF EPPS.

Interceptor Software's game *Jewels Of Babylon* is causing problems for Gary Juves from Warley, West Midlands, who requests help passing the rock behind the waterfall and avoiding a nasty death at the hands of cannibals. To passify the natives HJWF XBUDI UP OBUJWFT. To open the rock door you need the SPE. I would like to thank J Wilson of Rochdale for help with this game.

About the ever popular *Spiderman*, Brian Warrenpoint asks: 'How do you get past the fan and how do you defeat Mysterio?'.

To stop fan, DBTU XFC BU GBO until RPMS is 50 (found by examining fan). Then QVTI CVUPO.

On the first Questprobe game *The Hulk*, Ernest Nickells from Battersea would like to know how to get out of the underground cavern and what to do with the bees and why Dr Strange is pointing to the Base Board. All of these questions are in fact interrelated. To remove the bees, go outside and XBWF GBO BU EPNF. You can now get the wax. If you examine the base board you will find a gas outlet which can be plugged allowing you to remain the Hulk longer. You can then pull the ring. This allows you to exit from the underground room.

Ian Scott from Oxford writes: 'Could you please, please, please tell me how to start *Temple Of Vran*?

First of all I have chopped the tree which takes me across to the scrublands where I find a useless elephant, a kitten who won't even chase a mouse and a trampoline which won't work. Please help me, my hair is greying at the task (What's left of it seeing as I have ripped most of it out in frustration)!'

First you should get the club, prepare it and go south to the Sacred Ground. Kill the Wart and Hit the door to open it. Go east, down and south to the skeleton and Hit Skeleton. Get the objects, goto the elephant and then to the cliff with the untied rope. The elephant should follow you. feed elephant with the peanuts and tie rope to elephant. I hope this is enough to set you on your way.

Carl Warren from Blackpool is unable to find the Dragon Statuette which he needs to cross the lava chasm in *Velnor's Lair*. It is through the narrow crack with the unreadable writing. To pass the crack you need the UFMFTDPQF. This is found in the SBHT in the SBU cave. Simply enter the magic word.

In *Kentilla*, D Dyer of Braintree is having trouble getting through the trapdoor in Grako's shrine in one piece. To do this you must lock the statue arm by inserting the rod. For all those who have killed the Zalrogs and Grako in combat, I think you've cheated by constant saving and loading! Grako cannot be permanantly slain on Earth!

In the same game Nigel Nisbeth is unable to pass the Karush. Try QVU NJSSPS UP DBHF.

Finally can anyone help several adventurers who are unable to kill the dragon in *Twin Kingdom Valley*?

This month's £12 software prize is winging its way to Jonathan Sherwood for his tips on Sherlock.

ENCRYPTION CORNER

It's easy to speak Brewster!

Using this handy decoding scroll, just check off the letters in 'Brewster' one by one, writing down the English equivalent, and all will be revealed!

ENGLISH:	Z A B C D E F G H I J K L
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ENGLISH:	M N O P Q R S T U V W X Y
BREWSTER:	N O P Q R S T U V W X Y Z

SUPERHEROES

We have two new SUPERHEROES this month. The first is JUSTIN RICHARDS from Ashton-under-Lyne who completed Level 9's new mega-adventure *Red Moon* in an amazing 12 days. He saved the Kingdom of Baskalos on 11th of August with a score of 680/1000 and a rating of Senior Adventurer.

SUPERHEROINE

Our second SUPERHERO is in fact a SUPERHEROINE. She is ANN BORLAND from Canvey Island who rescued Mr Richard in Radar Games' *Confidential* on the 18th July.

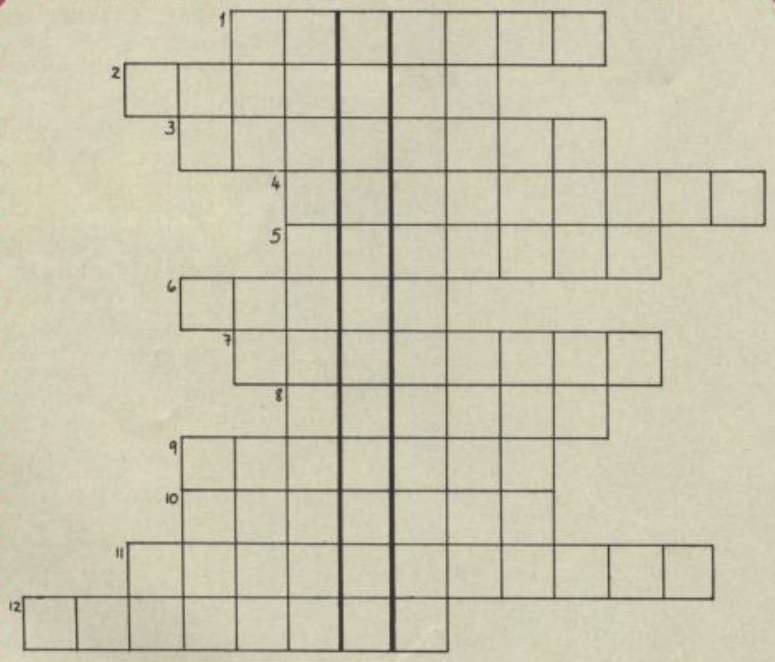
If you to would like to become a SUPERHERO, write and let me know when you have completed a newly released game. To qualify you must give the date you completed it and a few hints on how you achieved this and what happened at the end. Games reviewed before the July issue don't qualify, only the first person to complete a game can be a SUPERHERO.

KNOW A LOT ABOUT SOFTWARE?

Another Fiendish ROBERT LEEDHAM Quiz, this time to tax your knowledge of Spectrum Releases. . . .

THE CLUES

1 The Scene of Ziggy's first adventure
2 What the snakebird helped you stop
3 Hewson Consultants had this sort of diamond
4 Wally suffered from this while working on the car assembly line
5 Brian Skywalker had to keep this out of trubble
6 The part of a match Psion were interested in
7 Software Projects' mad spaceman
8 Bear might give you a bit of this
9 This mountain housed a Warlock's treasure
10 Mizar came out of these
11 Who found himself in double trouble?
12 Where Wilf came from



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Robert Leedham, author of the cunningly complex February CRASH Quiz has come up with another little brain teaser to amaze and amuse you. The man claims that it is 'less intellectual that its predecessor', but you'll still have to have a good knowledge of Spectrum software, past and present, to get the solution sorted.

Robert's devised twelve clues for you to ponder. Solve each of them and enter the answers in the grid lovingly drawn on this page. You should end up with the name of a game in the vertical column which has been heavily outlined.

Just to make sure that no-one gets away with making an educated guess at the main game name, we want you to complete the whole grid — twelve correct answers revealing the hidden name means one correct quiz entry.

Get your thinking caps on, thumb through a few back issues of CRASH if you need a bit of help, and whiz your answer to ROBERT LEEDHAM QUIZ, PO Box 10, Ludlow, Shropshire, SY8 1DB to arrive via the Ludlow Post Office by 24th October. As usual, first three winners out of the giant cardboard box each win £25 of software of their choice and a CRASH T Shirt, while three runners up get their very own Haute Couture T Shirt. Don't forget to put your T Shirt size on your entry — it saves Male Order Aggie lots of grief!

ANOTHER WHIZZO SUBSCRIPTION OFFER

DOUBLE YOUR MONEY – SUBSCRIBE TO CRASH AND GET MORE THAN YOUR MONEY'S WORTH OF SOFTWARE FREE!

CRASH ZX SPECTRUM

Design Design

Ho hum. There we all were — well some of us, anyway — sitting quietly in CRASH Towers, when suddenly . . . the door to our haven of peace was burst asunder and in came the Design Design crew to deliver Part Two of their Auto-Profile and history-of-a-new-game thingy.

As they dragged a couple of unwary CRASHlings down to a local hostelry for an evening of OLD FLATULENCE Bitter Ale and a good chin-wag, someone rattled the bars of the Marketing Minion's cage. He came too (mainly uninvited). Biding his time, he waited for the moment and then . . . when the Des Des crew's guard was down he pounced and told them they should do a subscription offer. What chance did these mere (?) mortals (??) have against a two-pronged attack by the Marketing Minion and OLD FLATULENCE Bitter Ale. They had to agree!

So, that's how it happened. Now you can choose three of the four games described and get them totally free of charge if you buy a twelve month subscription to CRASH during the month of October. Can't be bad, eh?

Not just ordinary, run of the mill games these, either. One's never been on commercial release, and is already something of a collector's item. One's legendary for making a SPECTACLE of itself . . . another's famous for its super high-speed 3D graphics (amongst other things). And of course, there's an up to date, only released last month, CRASH Smash among the quartet of game on offer.

Difficult choice, lads and lasses, difficult choice. But one you'll have to make if you can't survive without a twelve month standing order for CRASH, Britain's Brightest, Breeziest, Soaraway, Dead Brill, (that's enough silly superlatives —Ed) Spectrum magazine.

DARK STAR

An all-action 3D space game. Super fast action too, in a game specially designed to confound reviewers. Also, features the added bonus of SPECTACLE — a treat in store indeed. Guaranteed not to feature "Materialisations, Sprites, Unused RAM, a Stupid Scenario or Magic Rings". Movement is 2 Million-way, the vector graphics are in colour etc. etc. What more could you want (apart from your very own Star Wars machine?)

HALLS OF THE THINGS

A bit of a cult, this game. Produced when the lads called themselves Crystal, HALLS is an animated adventure — arcade sequences inside a seven level maze game. Battle against the things (which can open doors and have a nasty habit of disguising themselves as obstacles — the Tower must have been based on the programmers' residence!).

ON THE RUN

Your mission is to enter a deadly area which has been affected by chemical weapons and is full of nasty mutants. Dodging and zapping the mutants, you must search the maze and collect six flasks of deadly chemicals before your time runs out. A CRASH Smash last issue.

RETURN OF THE THINGS

This one's never been on commercial release — only a few copies exist outside of Design Design Towers. You find yourself in a swamp outside the Evil Tower. Scattered over the landscape are the Ankhs of Osiris which you have to collect and return to the Altar of Osiris in a city. Not for the faint-hearted or Thing Shy, this one

THE MARKETING MINION STRIKES AGAIN!

IF YOU ALREADY SUBSCRIBE

Don't panic! There's no real need to be left out. If you use the coupon to get in touch with Aggie, she'll swop your cheque or postal order made payable to CRASH in the sum of £5.95 for three of the four games mentioned on this page. All you need to do, is tell her WHICH three! Oh, and don't forget to quote your subscriber number — Aggie likes proof. . . .

THREE OUT OF FOUR FOR FREE AIN'T BAD AGGIE

OK. You've got me hooked. I can't wait to subscribe to CRASH — I've been meaning to for ages. I live in the UK and enclose £14.50 for my twelve months subscription to CRASH. I want my three free games now, it's part of the deal Aggie babes, so send me the following games . . . (I know you won't be messed about, so I've crossed out the one I don't want with a thick, black pen so there can be no confusion):

DARK STAR

HALL OF THE THINGS

RETURN OF THE THINGS

ON THE RUN

NAME .....

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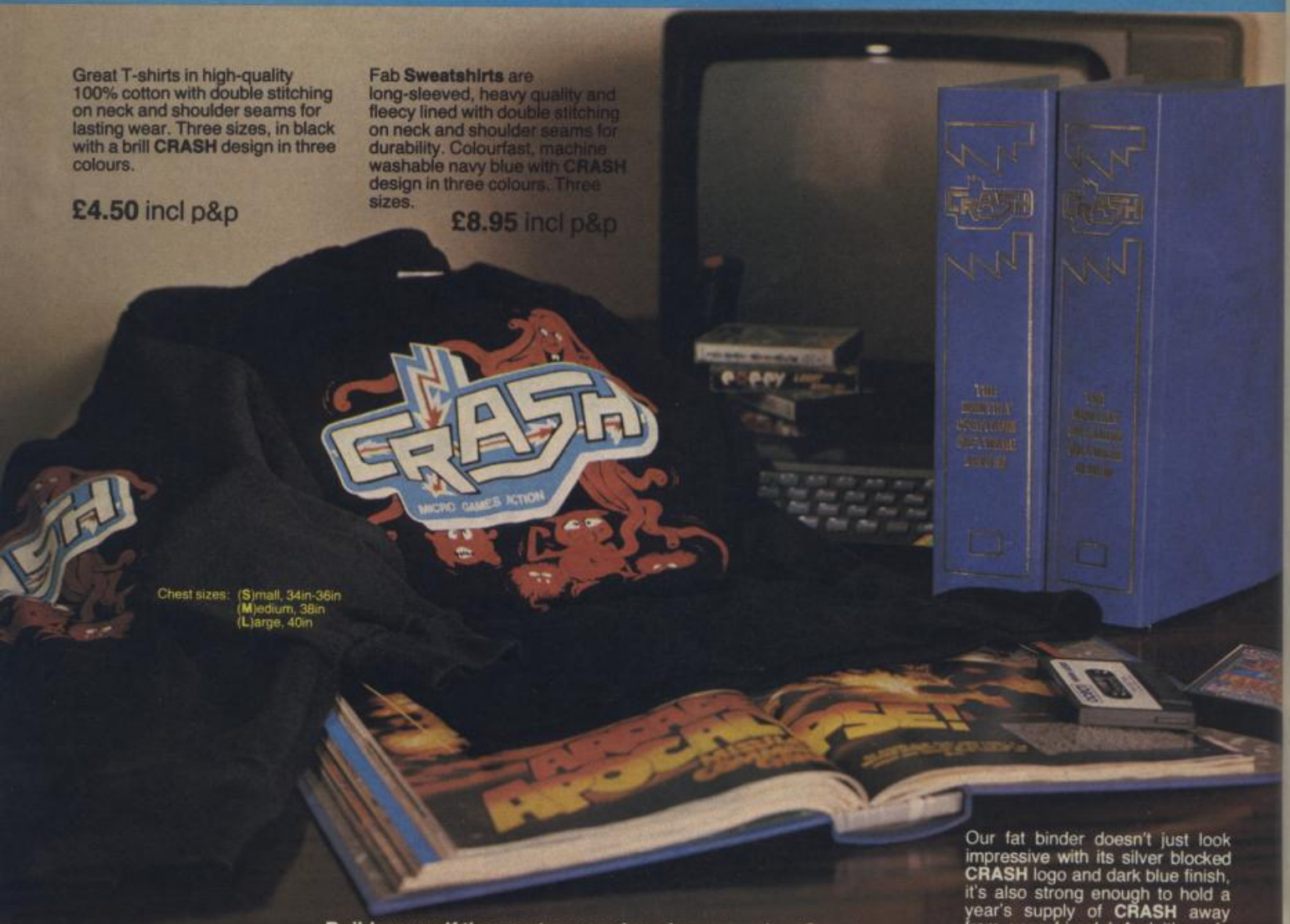

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WINNERS WINNERS WINNERS

PHONE-IN HOTLINE DISCONTINUED

Voting for the CRASH Hotline and Adventure Chart can no longer be done by phone — too many rude phone calls upset the neighbours!

But don't despair, you can still cast your vote for the two CRASH charts, so long as you do it by post and use the coupons below (or a photocopy). Each month we'll still be drawing five lucky prize-winners out of the Hotline Vote Bag, and five more winners will come out of the Adventure Chart Cask. First coupon out for both charts wins £40 of software and a CRASH T-Shirt with four runners up from each sack of mail collecting a T-Shirt and a super dooper CRASH Hat.

HOTLINE VOTING - Your Favourite Five

It's as simple as ABC(DE)! All you have to do is list your favourite five programs, in descending order, next to the little numbers on the coupon and whizz it off to us.

ADVENTURE CHART VOTING

After much deliberation, we've decided to limit the number of games you can vote for on the Adventure Chart to five. No longer can you keep on voting for as many games as you like (or can think of). It's five adventure games only now, folks. You still need to give each game you vote for a mark out of ten, however, so we can apply a cunningly derived mathematical formula to everyone's votes and come up with the final ranking. Quite simple really, for you if not for us.

DON'T FORGET

The telephone number for the Hotline Phone-In has been discontinued, so don't waste your time and money trying to ring in Hotline or Adventure Chart votes. Postal votes only chaps and chappesses, on the coupons to PO Box 10, Ludlow, Shropshire, SY8 1DB. If you want to save money you can pop the coupons in the same envelope as your competition entries — so long as you mark it MULTIPLE ENTRY.

Get Voting....

CRASHTIONNAIRE '85 WINNERS

At last! We've finally found someone who could come in and type the information contained in all the Crashtionnaire forms into a CRASH computer. Gaz Sumpter **came along and worked nights — having been refused permission to wash Jeremy Spencer's Morgan for him. A quick taster of the analysed results appears earlier in the magazine, so without further ado or adon't, here are the lucky winners of the Crashtionnaire Draw:**

First out of the hat was **Julian Frank** of Neylond Crescent, Norwich who gets £60 of software and a CRASH Sweatshirt. The three runners up, who each win £12 of software and a T shirt are: **Neal Cavanagh**, of Bodiam Ave, Gloucester; **J Lawler** of Tipton; and **Andrew Shenton** of Congleton Road, Stoke on Trent. As an added bonus, all four of the above-named people win a three month mini-subscription to CRASH. Well done folks, and thanks to everyone who sent in their forms.

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TITLE	VOTE OUT OF TEN
1	
2	
3	
4	
5	

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TITLE	PRODUCER
1	
2	
3	
4	
5	

WINNERS WINNERS WINNERS

EXPLODING FIST

Paula Byrne, **the nice lady from Melbourne House doesn't know what's in store for her . . . all those envelopes with "PAULA BYRNE IS WONDERFUL written on them which will soon be winging their way to her. Tee Hee. The following people were lucky in the wordsquare competition, and will have a copy of Melbourne House's martial arts blockbuster winging their way to THEM:**

R Arbuckle, Dorset Close, BT41 Z56; C Bailey, Spey Street, G33 2RZ; C Blair, Letterbreen, BT74 6DG; M Blanchett, Browns Rise, HP23 0NJ; J Bond, The Shrublands, EN6 2BN; C Brown, Blenheim Drive, NG9 5ES; M Brylak, Forthview Road, EH32 0LB; R Buckley, Bottom Lane, RG7 4BL; S Cadden, Park Place, Edinburgh; C Charles, Mount Pleasant Lane, E5 9DN; J Colgan, Ferring Close, TN31 7BY; T Colhoun, Gillingham, ME8 8JQ; T Cook, Bowerdean Road, HP13 6AY; S Cook, Constable Avenue, HU11 4HW; M Creasey, Pickering Street, ME15 9RH; L Curley, Elms Park Avenue, HA0 2RS; D Jones, Orchard Close, HA4 7LS; R.J De Garis, St.Saviours, Guernsey; C.I, S Dickinson, Ponty Pistyll, SA48 8HL; J Eaton, Mellor Road, L42 9PS; S Edwards, Harewood Way, M27 2FX; C Gibson, Queen Street, HX7 5HN; A Gill, Banbury Road, M24 1QB; K Gray, Bartholomew Road, OX4 3QQ; M Hand, Upper Kinveddar, KY12 9TR; A Harris, Westminster Road, BB5 9AW; C Haswell, Leicester Road; S Hayes, Rock Terrace, BL1 3LB; A.L Heath, Halesden Road, Sk4 5EF; D Helm, Atholl Grove, WN3 5NB; N Hollinghurst, Primrose Lane, Sk13 9LW; S Holt, Ribchester Drive, BL9 9JT; A Huggett, Woodlands Close, DE2 5DZ; J Clarke, Grace Way, SE1 5AA; D Jackson, Sycamore Farm, IP8 4NN; R Jackson, Culver Grove, HA7 2NG; M John, Lower Moreton Road, SA69 9EB; D and B Johnson, Arundel Street, PO1 1NU; S Johnston, Graeme Avenue, AB2 0BU; C Jones, Spinfield Lane, SL7 2LB; J Khan, Wood Green Halls, N22 6UZ; G Kilby, South Downs Drive, WA14 3H;, M.J Lambeth, Quex Road, CT8 8AT; T Lawler, Grove Park Road, RM13 7DA; I Lee, Haymans Green, L31 6DA; G Lefevre, Tallis Lane, RG3 3EB; R.P.L Leslie, Sundridge Drive, ME5 8JD; J Lewis, St.Ervan Road, NG11 7BU; P Lilley, Lower Bomps Edge, GL6 6PB; A Lockyer, Beechwood Road, GU21 2DJ; M Lovell, Larpenter Path, CM13 1LJ; M Luscombe, Lincoln Avenue, BH1 4QS; M Manky, Parkland Drive, S42 6UU; B Marshall, Princess Drive, L12 6QH; S Martin, Beech Drive, ME16 0AH; K Masood, Cranmere, TF3 1XS; R McConnell, Eyre Street, CF2 2JT; D McCrow, Trehem Close, B93 9NA; D Melling, Dryden Avenue, WN4 0JZ; P Miller, Stockwell Drive, BS17 3DN; S Mitchell, Teal Road, LN4 4NA; J Mitchlmore, Frances Road, 4ET 0XE; P.J Munday, Mayfield Road, SO2 3SW; S Murphy, Hibbert Road, HA3 7JU; A Murray, Hawes Lane, BR4 9AA; J.D O'Connor, Montpelier Gardens, RM6 4EJ; N Oughton, Lower Rye Farm, Gl56 9AA; P Taylor, Gayland Avenue, LU2 0RR; G Payne, Treviso Road, SE23 2EB; G Pearson, Longdale Green, WS11 1QS; P Perkins, Chiltern Road, LN5 8SE; J Phillips, Summer Gardens, GU15 1ED; R Sanders, Sandy Lane, S80 1TL; J Rankin, Glengyle Terrace, EH3 9LN; A Reid, Clydeview Terrace, G32 8AB; N Reynolds, Harrison Close, SR8 5RB; G Rose, Marlwood, NG12 3NS; S Brayne, Oakland Road, S6 4QQ; I Savage, Castel Croft, Telford; R Scheer, Court House, KT19 8SF; P Shadbolt, Greyfriars, SG12 0XW; P Sharkey, Chase Side, EN2 6NL; J Shaw, Avemore Way, DE2 9NQ; P Shiels, Lime Tree Road, Washwood Heath; A Sinnott, Chantal Avenue, CF31 4NN; M Skyrme, Chichester Road, PO21 5AE; C Smith, Pear Tree Close, GU35 0SR; I Smith, Drayton Drive, SK8 3LF; D Smith, Batley Street, Manchester; N Smith, Sondyforth Avenue, FY5 4BS; R Somaiya, Round Hill, LE7 8PP; J Taafe, Garden Walk, M31 4PE; R Talby, Serlby Gardens, PE3 6QD; M.F Thienel, Pettley Gardens, RM7 9AB; G Thompson, Wheatfields, EN3 5DW; J Victory, St.Johns Court, N4 2HL; I Wallace, Runnymede, PO15 6ED; P Williams, Croftwood, HP13 7YE; N Willmott, Auclum Close, RG7 3DY; J Wolf-Flanigan, Russell Grove, SW9 6HS.

AUGUST CRASH QUIZ

Twenty—five pounds worth of software go to: R Agalawatta, Denehurst Gardens, NW4 3QT; A Clarke, **Carmel Street, CB10 1PH and** S Hunter, **Musgraves Orchard, Nr.Lincoln while the following peoples win a T Shirt only:** G McDowall, Wilton Road, SP2 7EG; N Milne, Blackburn House, KY12 9BL; J Pickles, Avenue Road, N10 0SN

LEISURE GENIUS CLUEDO COMP

Prizes, prizes, prizes. That's all we have time for this month. Twenty five winners of Leisure Genius' *Cluedo* **comp are briskly followed by twenty five more winners of the** LG *Monopoly* **Comp.**

N Abbas, Mauldeth Road West, M21 2RF; J Bennett, Killingworth Road, NE12 0BR; N Brownlee, Winston Place, Scotland; G Collins, Dean Park Square, EH14 7LN; P Davies, Lydstep Grove, CV31 1NS; G Edge, Arnold Place, WA8 8QQ; I Harnley, Wimperis Way, B43 7DG; C Holder, Lowry Hill Road, CA3 0EZ; G Hughes, Raeburn Road, BS5 8PS; M Hughes, Duke Street, L37 4AT; J Jacobsen, Vestergardsvej, Danmark; M Jagd, Emmasvej, Denmark; A James & C Bailers, Spode Grove, Westbury Park, ST5 4HF; S Jones, Green How Park, LS29 7LZ; M Leah, Oakworth Street, S19 5SE; S Leason, Heathfield Road, ST14 7JN; E Moreton, Umberslande Road, B29 7SB; J Morgan, Eatons Mead, E4 8AN; A Parry, Broad Lane, N15 4DJ; D Picton, Withycombe Road, WA5 2QL; J.A Scutt, Springfield Close, M35 0DE; C Smith, Branden Burger, West Germany; G Spencer, Crossdale Drive, NG12 5HP; C Staples, Ingrams Way, BN27 3NX; J.W Walmsley, Lyttleton Street, B70 7SE

MONOPOLY COMP WINNERS

S Bedelian, 30 Downsway, KT20 5D2; J Bennett, Killingworth Road, NE12 0BR; A Billington, Monkspath, B76 8DX; L Bryson, Hurcott Road, DY10 2RG; S Coleman, Vicarshill, SE13 7JB; G Collins, Dean Park Square, EH14 7LN; J Da Bama Rose, Cotebrook Drive, CH2 1RB; J Fox, Carenterswood Drive, WD3 5RJ; L Hathaway, New Road, WS9 0JN; D Highwood, Hutsfordce, ME8 9SS; K Hood, Wear Street, SR7 7ER; C Hughes, Engleheart Road, SE6 2HW; D Kemble, Westward Road, E4 8QG; P Krishnani, Upton Court Road; D Maytom, Mortimer Road, BH8 9HP; G Newton, Green Lane, DE7 5PP; D Orton, Parkhurst Road, L42 9LA; W Phipps, Palace Road, Surrey; S Randall, Tintern Road, PO12 3QN; L Sefton, Denmark Road, N8 0DZ; G Smith, York Road, E4 8QL; R Stead, Cherry Sutton, WA8 9TN; M Stephenson, Northcote Avenue, NE5 5AN; P Tong, Rue Des Belles Fevilles, France; D Wilson, Chester Way, PE21 7PR

MONTY ON THE RUN — CRASH

There's sure going to be some well dressed joggers as the result of this little compo. The following people will be able to amaze their friends on sports days, or indeed on shopping trips or lazy days in the garden. So long as they're wearing their Monty Jog Suits, that is, provided courtesy of *Gremlin Graphics*:

A Beale, Lime Grove, WS1 36ER; A Brown, Woodlands Farm Drive, B24 0PQ; A.J Coleman, Manilla Road, B29 7PZ, M Collins, Ermin Street, GL3 4HW; G Ewing, Tulloch Park, AB2 9UR; P.A Fairless, Wreay Walk, NE23 6LJ; K Fisher, Bagstone, Gl12 8BD; L Hallett, Lower Stoney Road, Gwent; T Henry, Shaftesbury Avenue, PR1 0EL; P Jenkins, Lon Isa, CF4 6EE; D Merryweather, Lancaster Gardens, N2 9AJ; M Miah, Elmswood Avenue, M14 7JR; H C Morris, Victoria Road, CH2 2AX; H Spencer, Grays Close, SO5 8PG; C Tait, Longacre, Tyne & Wear; R.D Tregale, Howard Avenue, SL2 1LB; G Warcup, Lincroft, MK43 7SP; C.A Warren, Great Innings, SG14 3TO; S Wilson, Chested Way, PE21 7PR; D Wright, Churchfield, WN6 8BE

ARNHEM COMP

There's no shortage of military knowledge amongst CRASH readers, as this particular competition proved. The knowledgeable persons listed here will all be rewareded with a copy of CCS's **proggy,** *Arnhem*. **Goes to show how useful paying attention in History lessons can be . . .**

D.J Austem, Glebe Road, IP25 6PL; T Austin, Lucerne Grove, E17 3NS; R Bateman, Strelley Avenue, NN3 3UH; D Bellamy, Lea Way, Northamptonshire; C R Bradley, West End Road; MA4 6JG; Mr Burnett, Blundies Lane, DY7 5HU; D Cavill, Woodview, DN5 7QS; R Cuthbertson, Saltwell Place, NE8 4QY; M De Boer, Nieuwlicht, Netherlands; J D Doggett, The Drive; EN6 2AP; T Elson, Crawford Close, SO1 9XF; B Falconbridge, Collingwood Road, CT15 6EX; G Forskitt, Hawthorn Drive, NN11 6PU; H Fousent, Plataanstraat, Holland; M Guest, Whinfell Close, NE23 6LX; I Hart, Lower End, MK18 2DB; D Hodgson, Redworth Road, DL4 2JJ; D Hodgson, Redworth Road, DL4 2JJ; S Hornblow, Birch Road, RG26 6QT; W Hurley, Clockhouse Lane, RM5 2TH; B Johnstone, Downing Drive, NE61 2YB; N Kelly, Chimes Avenue, N13 5HT; T King, Park Road, BD16 4LW; C.M Leese, Livingstone Road, B20 3LS; R P R Leslie, Sundridge Drive, ME5 8JD; T Leyson, Paighton Road, Middlesex; A S Mangat, Main Road, RM2 5EU; D Marshall, Cissbury Ring South, N12 7BD; M McCann, Blackdene, NE63 8TL; G McDowall, Wilton Road, SP2 7EG; N McLaughlin, Carnlea Road, BT43 6TS; S W Meale, Murchison Road, EN11 0QD; S Mitchell, Teal Road, LN4 4NA; E Moreton, Umberslade Road, B29 7SB; J P Oldroyd, Aspen Close, WF2 0VF; G Parker, Thorpelands Avenue, NG19 0PF; S Payne, Kent; S Proudman, West Town Lane, BS4 5DX; F Sands, Fern Heights, N.Ireland; M Sargent, Sandrocks Way, RH16 4JL; P.J Saunders, Sandcroft Close, B12 2TH; A Sayer, Windflower, SN2 3QS; N Selby, Avebury Road, SN14 0NX; P Simonds, Lawn Lane, CB6 2RE; R.K Smith, Landsdowne Street; DL3 0NL; C Thomas, Foden Road, B42 2EH; M D Usher, Coomside, NE23 6HW; K Wise, Brookside, OX12 0JL; C.J Wright, Tyburn Road, L63 9HJ; D & R Yarwood, Brook Lane, B13 0DH

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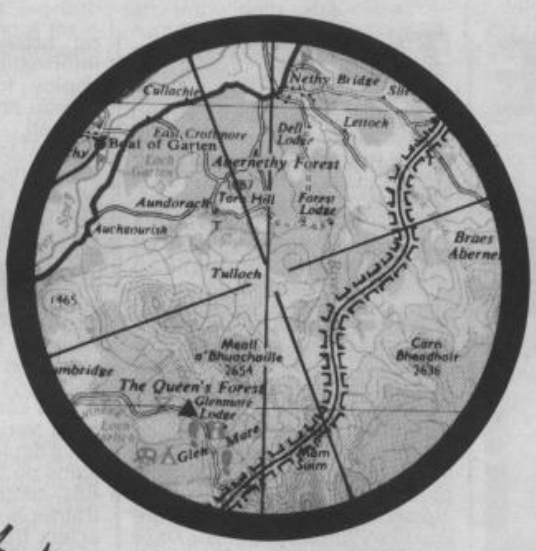

As regular readers of CRASH will be aware, Angus Ryall of Games Workshop has been our strategy reviewer for a goodly chunk of time. However, Angus is now interested in developing other areas of his life and is relinquishing his regular column. This doesn't mean that Angus is never going to write for us again . . . expect to see the occasional vituperative contribution from Angus between the CRASH covers from time to time.

Sean Masterson will be occupying the Frontline from now on — two days after he started work in CRASH Towers, we found he was a keen strategist, and so we gave him a desk, and told him he was editor of the Frontline column . . . over to you, Sean.

. . . OF STRATEGIC IMPORTANCE AND THE IMPORTANCE OF STRATEGY . . .

THE PURPOSE of this column, as I see it, is not just to review wargames, although they are almost bound to take up the largest proportion of space, but to have a look at strategy software in general.

There is something in the subtlety of a good strategy game which appeals to many people more than arcade or adventure games. Arcade games require great manual dexterity. Adventures require a good deal of lateral thought, but the player can still have trouble deciphering a game's input format long after the clues have been solved, because of the restrictions of computer memory. With a strategy game, there is no guaranteed method of success. Only a guideline — a strategy — which may bring you closer to your goal. Strategy games have more potential for variety than any other type of game.

Every time you load a game like *D-Day* into your trusty machine, you know that no matter how many times you've played it, you're going to have to put a great deal of thought and intricate analysis of case problems into the gameplay if you are to stop the enemy from hammering you into the ground! There isn't the smug certainty of success that comes with experience on your average arcade game.

Of course, many people are not directly attracted to wargames anyway, feeling that they are somehow morbid. Whilst I cannot agree with that assumption, I fully appreciate the sentiment. Still, software houses have responded to this in quite an exciting way — more fantasy and science-fiction games are appearing. One only has to consider the success of something like *Lords of Midnight* to see that the market does exist. Strategy games seem to have an interesting future ahead of them.

Before moving on to this month's reviews, it's appropriate to give a rundown on the new rating system that will be used in these pages. Herewith a quick rundown of what they are and what they mean:

Presentation: from packaging to loading and options screen. A friendliness factor
Rules: How well written and logical they are. Also takes into account complexity and clarity
Playability: How easily and smooth flowing the game's structure is, once you have digested the rules
Graphics: Rated relative to other games of the genre, *not* a comparison with arcade game graphics
Authenticity: Degree of realism achieved
Value: Is it worth the money?
Overall: Our impressions

In conclusion, I would be keen to hear from any keen strategists or wargamers who have views or opinions they'd like to put across. Drop me a note at FRONTLINE, CRASH MAGAZINE, PO Box 10 Ludlow, Shropshire SY8 1DB — and who knows, we might be able to start a Strategy Forum. If I get enough response, they might even decide to keep me on (please guys . . .)! Hang on, Graeme sounds in a good mood; things are getting better. On with the reviews. . . .

CONVOY

Publisher: Budgie Software
Author: **David Thorpe**
Price: **£2.50**

First impressions of *Convoy* were very good indeed. The packaging was superb, especially for a budget game. So, interest already aroused, it was hastily loaded — and that was where disillusionment set in.

The game displays a very impressive loading screen — somewhat reminiscent of *Beach Head*, which has clearly been designed by professional graphic artists: unusual for budget software and certainly for wargames of this type. Unfortunately, the good impressions end once the game has loaded. The two players required must choose their respective flagships and it's time to read the instructions.

One problem with many strategy games, and in particular, wargames, is that it's usually necessary to digest masses of highly detailed rules before play may commence. Sometimes this proves to be worthwhile, sometimes not. This was one game where reading rules hardly made any difference at all — they were simply appallingly vague. The so-called instructions are, in fact, just an information sheet about the various ships and submarines with additional information regarding navigational techniques. The only other item covered is how one actually wins (or indeed loses) the game. Actually *how* to play is not even mentioned once. It is precisely this sort of oversight which can render games of this type totally useless. Before contemplating victory in *Convoy*, you need to spend a long time working out how to make your moves.

Playing the game is a tiresome and laborious task. First you have to opt to signal, then type in which unit you wish to signal to, and then go the the process of actually telling the unit what to do, which is yet another series of entries, each needing a fair amount of consideration. One interesting touch is that requesting a report on a particular unit causes a picture of the ship to appear on the screen. However,

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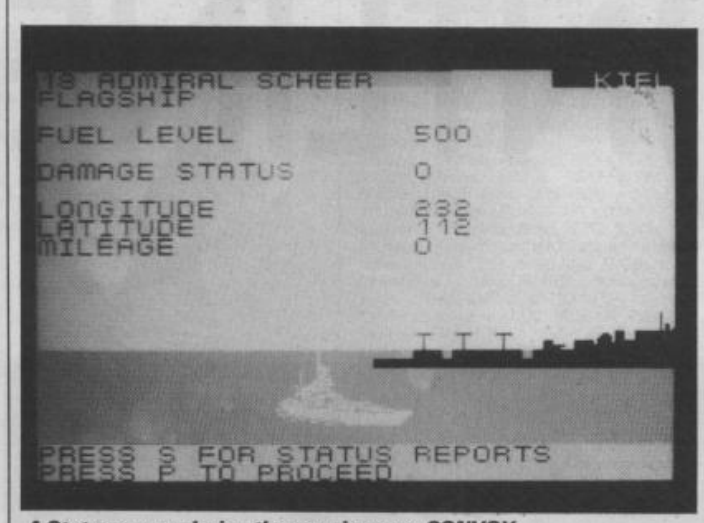

A Status screen during the sea-nic game, CONVOY. Personally we prefer playing with our rubber ducks in the bath — more fun and safer.

once the same picture has appeared several times but referred to under different names, the effect soon wears off. The graphics for these little symbols are quite nicely done, like the title screen — but don't expect anything like the quality of graphics involved in an arcade or adventure game.

The object of the game is to get supplies to your own country, while simultaneously trying prevent supplies reaching your opponent's country. Surprisingly, there is no option to play against the computer. *Convoy* is a strictly two-player game, with Germany and Britain to choose from, and secrecy of plans and routes is so vital to interesting play that one person cannot play both sides successfully — you need a friend as an enemy! Furthermore, it is essential that each player looks away from the screen at various points in the game, which might prove difficult under some circumstances.

You try to achieve your aim by setting courses for your ships, pointing them in the direction of your country. This task is made very tricky by periodic weather changes, and allowances must be made accordingly (this is easier said than done). You can also try to set courses to block off enemy ports or shipping routes, though during play, absolutely no success was gained attempting this. An action sequence is mentioned in the 'instructions', but again, we couldn't find it!

What you do have to watch out for, is encounters with aircraft. Any damage to merchant vessels from planes sinks them, meaning you land less cargo when you reach port. One annoyance was dealing with petty details such as calculating exactly the speed of ships as they entered port so that they didn't crash straight into the harbour — that is probably going further than actual ships do in practice! It also means you waste a good deal of time for very little reason.

The game inevitably takes a long time to play to its conclusion and it becomes immensely boring long before then. There is a save game option for masochists, though. *Convoy*is a very strange mixture — some very good graphics (spoiled by vast overuse) combined with the potential of a reasonable wargame are ruined by poor game play. There is a redefined character set but as only three of the characters are redefined, there seems to be little logic to this self defeating feature. In fact, the game is riddled with so many petty annoyances that the game probably takes more time to play than the average gamer will be prepared to devote to it. All in all, this is the sort of game which will quite likely put you off wargames for life and gives strategy games a bad name.

Even at £2.50 *Convoy* is not value for money, despite its professional packaging. It's quite simply a disappointment from start to finish — leave well alone.

Martin Lester

PRESENTATION 30%
Unimaginative and simple
RULES 10%
What rules? Practically non-existent
PLAYABILITY 40%
Not difficult but annoying and unremarkable
GRAPHICS 50%
Not bad for this kind of game, but spoiled by repetition
AUTHENTICITY 50 %
Hard to say as it isn't strictly a simulation
VALUE 12%
Minimal — only for masochists
OVERALL 25%
Even the low price doesn't justify its shortcomings

THE RATS

Publisher: Hodder & Stoughton
Author: **GXT (Five Ways Software)**
Price: **£7.95**

A plague of rats is swarming through London at an incredible pace. The government refuses to face the seriousness of the problem and won't give you the resources you need. Stopping the rats is proving tremendously difficult — you're racing against time and losing. The pace is electric but you wonder . . . are you likely to succeed in your task before you get sick to death of reloading the game . . .

There are several examples of computer games based on famous books on the market. The Electronic Pencil Company's *The Fourth Protocol* is perhaps one of the best examples of current success in this field, and now Hodder and Stoughton have released *The Rats* based on James Herbert's chilling novel. It is a fascinating mixture of semi-graphics adventuring and real time strategy. Unfortunately it is also a mixture of innovative successes and miserable shortcomings.

The title sequence is one of the most original and atmospheric ever designed for a computer game. A prologue is written out in bold white letters across a black screen to set the scene. A brilliant animation sequence follows, in which a pool of torchlight wanders around in the blackness before red eyes appear in the dark. Just as the light moves onto them, a superbly drawn rat pounces into view! Then you are presented with the main, blood-spattered loading screen. The pathetic little tune accompanying this is more amusing than annoying in the context.

The Rats is, to all intents and purposes, two games in one. The Strategy game involves stopping the spread of the rats from the city of London and eradicating them as soon as possible. The opening screen is a simplified map of London with an option window at the bottom. The main options are 'Report', 'Forces', and 'Research'. A flashing cursor on the map indicates rat activity,and you can call information on areas of activity, deploy forces, or ignore the cursor and work on research instead.

If you ask for a report, you will be prompted to define which area you wish to access information about. Moving your own cursor over the chosen area on the map and pressing enter, opens a smaller window on the screen which provides basic information such as 'Old lady attacked by monster rat'. You may then eliminate the window and move on.

You can also ask for reports from various groups you may have deployed in the field. Three icons on the screen indicate the R&D centre, GHQ and Harris' flat (Harris is one of the major characters from the adventure section) and reports can also be sought from these places. It is fairly important to follow the reports so that you become aware of the nature of the attacks, but to concentrate too much time on them will leave you no time to allocate forces.

The deployment of the fire service, police and professional rat-killers is vital to your success — if you fail to contain the rats and they leave London you lose the game. The three types of forces have varying ability and choices of weaponry. Initially, weapons are fairly conventional, with dogs, gas and high pressure water hoses. You must equip a unit and then move it to the area where you require action (fortunately you don't have to figure out how many of what to give to whom; the limitations of each force are worked out for you). Later you may ask for that unit's progress report.

Your forces are very limited and trying to stop the rats with them is in fact impossible. What you need to do is delay the rodents for as long as you can and eventually, the army will be brought in by the hopelessly reluctant government, thus giving you a second lease of life. This does not happen for some time however, and there's plenty to keep you busy beforehand.

It's also vital to devote resources to research, but you have finite resources and must decide how to use them to best advantage. The areas for research are origin, nature, offence and defence. Spending points on offence and defence will help develop more potent weaponry to

If this rotund fluffy thing reminds you of your hamster then you've got problems. One of the not so friendly RATS.

use against the rats — but making discoveries about their origin is fundamentally important to the adventure game.

The adventure game, like the strategy, is real time. You are shifted to the adventure section at random intervals throughout play. Each entry into the adventure section, which is really a series of mini—adventures involving various minor characters' encounters with the rats, is precluded by an alarm sound from the computer. Don't worry if you lose minor characters — as you often will to start with. Allow a major character (such as Harris) to bite the dust, however, then you've had it!

The format of the adventure is excellent. A large window on the right of the screen contains all the text output in slow—scrolling format, which helps emphasise the real time aspect of the game. At the bottom of the screen is a small window with three major command options which give access to further sub—options presented in the left hand window.

A heartbeat sound (at least it's supposed to be heartbeat) accompanies the text. As the situation becomes more tense, the heartbeat speeds up, adding greatly to the atmosphere. Because the game uses options instead of text input, conversations with the computer can't be ambiguous, which results in very fast and efficient play. Occasionally a new option will appear in the window, implying an impending application — sometimes using it will not help, but generally the appearance of new options works like an inbuilt hint sheet!

If you lose an encounter with the rats, the page seems to tear open and a rat pounces out at you. The use of a simple scream sound is quite effective here too. This is definitely one of the highlights of the game. The narrative quality of the text is superlative and gory, in true Herbert style. Definitely not for the squeamish, this.

The two games integrate perfectly, with good strategy needed to keep going and good adventuring necessary to finally subdue the oversized vermin. With automatic returns to the strategy game after completion of the 'mini-adventures', this smooth play must be credited for the faultless piece of design it is.

The 'miserable shortcomings' of the game already mentioned don't really exist *in* the game, but rather around it. The loading sequence is very unfriendly: the tape has to be stopped during the animation sequence. Although the instructions mention a way to skip the animation, it didn't want to work, and very little leeway is left between loading sections. When the animation ends you do not receive a prompt to restart the tape, but have to wait for the tune to finish and press play. Problems arise which could easily have been avoided.

While the game is loading it is easy to believe that an error has occurred — the tape error warning used in the sequence is totally useless and it's difficult to tell whether the program is being received. This problem is aggravated by the disablement of the speaker, and for some totally inexplicable reason, some of the blocks are not actually received at all, to judge by the border during loading. It is natural to assume that the system has crashed — but if you leave well alone, the game loads perfectly in the end. This weird pretence of failing to load is very annoying — particularly since it isn't referred to in the instructions. Very unfriendly.

Once loaded, it's wise to save the game as soon as possible as as there is no restart facility because the program possesses massive data files and the game itself continues on the second side of the tape. If you haven't saved a game, you will have to load the entire thing from scratch! There is no menu of options to help clear up matters, and the instruction booklet is misleading and practically unintelligible.

These are major faults, considering the size of the game. On any other game they would be totally crippling, but because of the input format, even badly explained sections can be picked up fairly easily.

The game's percentage based scoring system is silly. We scored 35% for playing what was apparently a good game, full of successes. Yet on a new game where the computer was left to win without any player input, the final score was 21%! Also, when in the adventure section and the pace gets fast, minor system crashes seem to occur in the form of text character decay and randomly appearing, multi-coloured blocks, though these do not seem to affect play.

If Hodder & Stoughton had ironed out these faults, the game would have been declared perfect. However, its shoddily finished format may detract from the success the game deserves.

PRESENTATION 66%
Some prompts in the game would have raised this rating. And the instructions were ambiguous . . .

RULES 90%
. . . Having said that, once you pick them up, they're very clever!

PLAYABILITY 90%
Very fast and smooth — especially with a joystick

GRAPHICS 90%
Almost as good as they could possibly be in this kind of game

AUTHENTICITY 90%
Fair play and very close to the book. Impressive

VALUE 80%
You do get a lot of game for your money

OVERALL 70%
The game is let down by the loading problems and lack of a restart facility

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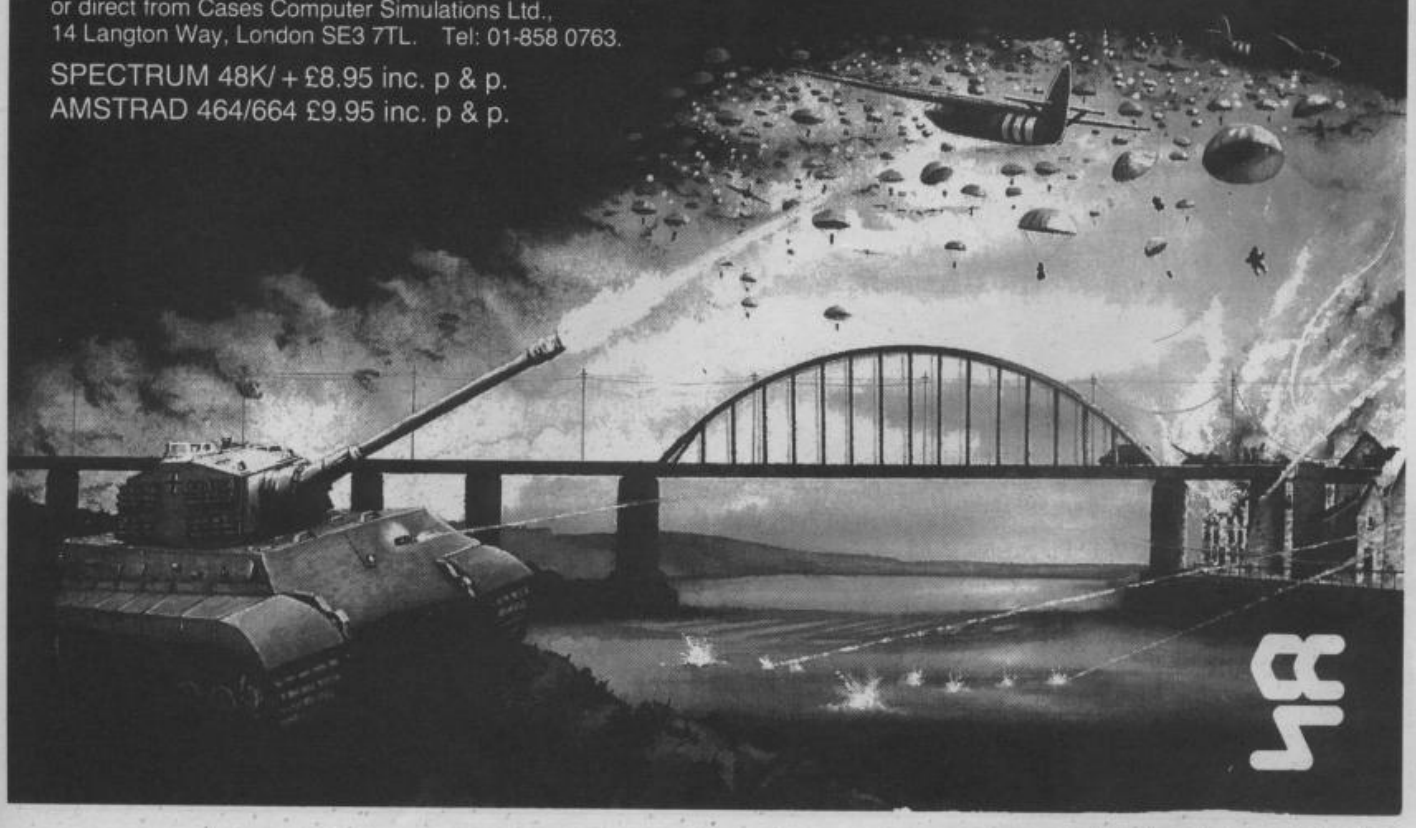

GOING

PLATINUM PRODUCTIONS are a quintet of canny Scots who have made a specialisation out of converting existing games to run on the Spectrum. Hand them a game which is not available on the Spectrum, wait a couple of months, hand them a fee and you'll have a Spectrum game. Software Projects, US Gold and the new Imagine have done just that and reaped the benefits.

Anyone who can get three consecutive CRASH Smashes with games they've converted to the Spectrum deserves to be checked out. Graeme Kidd ran up the CRASH phone bill doing just that . . .

The full PP Crew. Left to right: Mark Craig, Alan Laird, David Anderson, Robin Muir and Ian Morrison

PLATINUM

NO DOUBT statisticians throw their calculators up in the air in horror every time they hear about someone taking an average of a list of percentages: so beware of falling calculators. **Platinum Productions** have an average *Overall* rating of 79.5% on the nine games they've had CRASH reviews for. Not a bad track record, and if you remove the low rating they won for *Zaxxon* (58%) from the averaging, they creep up a few percentage points more to achieve a programming average over 82%. (Perhaps we ought to start a Software Wisden's Almanac!)

'When we were offered the job of converting *Zaxxon* to the Spectrum we knew it wouldn't look the same', David Anderson of Platinum Productions admitted in defence, 'we agreed to do it, despite the fact that we knew it wasn't going to be as good. It got the reviews it deserved — rather unfortunate, but it wasn't entirely our own fault.'

David Anderson and Ian Morrison are the main men behind Platinum productions, with 'New Boys' Robin Muir helping on the music, Alan Laird working as a programmer and Mark Craig taking on the role of Programming Assistant.

They have a pretty impressive track record: discounting *Zaxxon* all PP games have ranked well in CRASH reviews. For the record books, here goes — *Exterminator 82%, Brain Damage 69%, Beach Head 79%, Lode Runner 81%, Raid Over Moscow 92% (SMASH), World Series Baseball 91% (SMASH), Tapper 81% (SMASH), Dambusters 75%.*

Platinum Productions began with David Anderson and Ian Morrison on computer keyboards, aided and abetted by Robin Muir on synthesiser keyboards. Essentially, David and Ian write the code for conversions while Robin works out the music on his synths and presents the appropriate data to David and Ian for incorporation into the final work. The trio are all eighteen years old, all live in Ayrshire, all programmed the ZX81 and met up at school.

'Four people at school all had ZX81s early on and there wasn't much in the way of commercially produced software at the time', David began, 'we were learning machine code and started writing games on the 1K ZX81. One guy emigrated, another went out on his own . . . so the original quartet wasn't long lived.'

'I started programming in BASIC on a Pet and then got involved in machine code on the ZX81', Ian Morrison explained, 'and pretty soon, with 1K of memory, I was forced into machine code. I started writing games, as we all did, for my own amusement — we were just normal computer hackers.'

Robin Muir's entry route to computing was fairly traditional too: 'I knew David and Ian from school and my Dad got a ZX81. He lost interest and I picked it up from him and did some programming — typing in listings and the like. Then the Spectrum came out and the programming fell off as I got into playing games.'

Gradually, the programming duo of David Anderson and Ian Morrison expanded its horizons, and moved onto the Spectrum. 'We worked out that 16K rampacks were catching on and wrote a 16K game in the autumn of 1982 which we took to the ZX Microfair that Christmas. We came back with a Spectrum and converted our first game for the Spectrum — *Galactic Trooper*', David explained.

Games for Romik and Silversoft followed, and the team developed new routines for user friendliness, including a menu screen. In those days, skill levels and user definable keys were something of a rarity — **Rabbit Software**, for instance, produced games which allowed you to define keys at the start of a game, but to redefine the keys you had to reload the game.

But the money wasn't exactly flooding in. They re-wrote *Exterminator* as a full blown version of the arcade game *Robotron* and decided to tout it round software houses. 'We went to see people, rather than sending the game through the post and waiting for a response, which takes ages', David said, 'and when we went to **Ocean** they were impressed, but said they didn't want an arcade copy. However, they showed us *Beach-Head* on the Commodore and asked us if we could convert it to the Spectrum'.

Off they went, and produced a demo of the planes phase of the game in a fortnight. Ocean gave them the job and an eight week deadline to finish the conversion. They made it with two days to spare, and thus began a long term liaison.

Software Projects were interested in releasing the *Robotron* game, but nothing came of it in the end, and the program never saw the light of day. Platinum Productions did the *Lode Runner* conversion for Software Projects instead.

Then came *Zaxxon*, about which the least said the better, followed by *Raid Over Moscow*, which became the first of a trio of CRASH Smashes. 'We think we did a good job of it', says David, 'we feel that it is the best shoot em up for the Spectrum — generally such games either have good graphics or are fast. *Raid* has both.'

So how does the team work on a game? 'We approach each game as a project', David explained, 'sometimes we work together and sometimes separately, depending on the deadline we have been given. First we examine the game and decide which is the most important bit — on *Lode Runner* for instance, we had to get the screen right and the little man running about.'

Generally David begins work on the graphics while Ian gets on with developing the program. If there's not a lot of graphical work to be done, then the work is shared out. 'One of us might say 'that's a bit I can do easily' and take it on, or maybe one of us will have finished something and then take on the part of the other's workload' David explained. On *Raid* Ian did most of the graphics and a lot of the game. And there are no fancy development systems at Platinum Productions. Everything is written straight onto Spectrums, supported with microdrives, printers and lots of paper — and the 'New Boys', Robin Muir, Mark Craig and Alan Laird!

Robin Muir, unlike David and Ian, doesn't program full time. He's about to start the second year of an accountancy course at Glasgow University. He's a musician, playing keyboards in a band — **Locozip** — and uses a Moog Prodigy and Sequential Circuits' Pro One. 'David and Ian aren't very good at working out music on the Spectrum, so they asked me to get involved. They used me on a couple of programs, first of all on a piece of educational software.'

World Series Baseball was the next conversion undertaken by the team, this time for the new Imagine label. Robin explained his method of working: 'I got a tape of the music from the Commodore version of *Baseball* and played around with the tunes on a synth, working out the notes. Then I worked out the duration and pitch of the notes and handed over data to David and Ian which they incorporate into their program.'

'We felt *World Series Baseball* was our best game', said David, with some justification. It was their second CRASH Smash. *Tapper* was their next project — 'we didn't think we were going to be doing *Tapper*', he continued, 'we had another urgent job. With *Tapper* the problem was the constant tune, and the number and speed of the graphics. We used routines from *Raid* to run the graphics, and finished the conversion in five weeks.' Another Smash in the bag.

Dambusters is their latest conversion, reviewed in this issue. The team is not so pleased with the end result — a couple of bugs crept in . . . 'the conversion was done a bit quickly', David commented, 'we could have made it better with more time. It was just one of those things — we got to the point where it was dragging on and we had to finish the task.' Nevertheless, they added a couple of features, like the optional digital display, and sorted out a couple of problems that can be found on the C64 version.

Currently, the team is working on a conversion of *Beach-Head 2*. They've got the first screen half developed, are about a quarter of the way on the second and have worked out the graphics for the third screen. With luck, there should be a demo version at the Personal Computer World Show, and the finished game should be quite slick with constant sound, border colour effects and sprite quality graphics according to David.

Have they ever thought of designing and writing a game from scratch themselves, rather than always working on contract conversions? 'We have thought about publishing our own soft-

ware', Ian says, 'but it would limit the amount of time we have available for actually programming. Besides, the market is dominated by big companies nowadays — a lot of programmers started off with their own companies and have ended up working for large firms.'

'Getting the go-ahead for a project is quite difficult', David adds, 'we don't want to take the financial risk of sitting down and doing three months work on our own project and then finding that distributors don't want to buy it or it won't sell. We don't really feel confident enough about the industry to go out on our own.'

Whatever happens, the team have no plans to desert the Spectrum. 'We don't have time for Amstrad conversions, which might be seen as a logical step for us to take', David stated, 'if anything it is more difficult to write for the Amstrad, given its higher resolution graphics and sound capabilities.' The Spectrum 128K is on its way, and PP will stick with Sir Clive. 'The Spectrum is a machine that still sells,' adds Ian, 'there's not much that holds it back really. A good programmer can get good graphics out of the machine, and while the sound is poor, in the end it's up to your imagination as to what you can get out of the machine.'

Ian and David have both been offered places at Strathclyde University on a double-degree engineering course, which lasts for five years and is very intensive. They've both postponed starting the course — but this year Ian has decided to get an education. 'I've enjoyed programming, it's been fun and has made be a bit of money, but I think it is time I got an education and expanded my mind. I'm not sure whether I'll have time to carry on with much programming — the course is going to require a lot of effort and I've got to get industrial experience during the vacations. I'll just have to wait and see what I can fit in.'

David, on the other hand, may not be going to university after all. 'I'd like to get involved in *Super Zaxxon*. Things have progressed to the point where I think I should be able to avoid the minor disaster of *Zaxxon* and it's possible that I'll be doing a lot of work for US Gold. . . .

Rambo, the game of the film is on the cards. They've already seen the film and work is underway on a lookalike of the *Commando* arcade game. 'A good shoot em up, which is basically going back to the *Robotron* idea with eight directional firing on a scrolling landscape', David explains, 'A good shoot em up.' And they will be doing this one from scratch, for US Gold. It looks like they may have got the go-ahead for a project of their own at last.

'The Old Boys', Ian Morrison and David Anderson stand on a deserted bridgelet in the middle of a wild part of Scotland. . .

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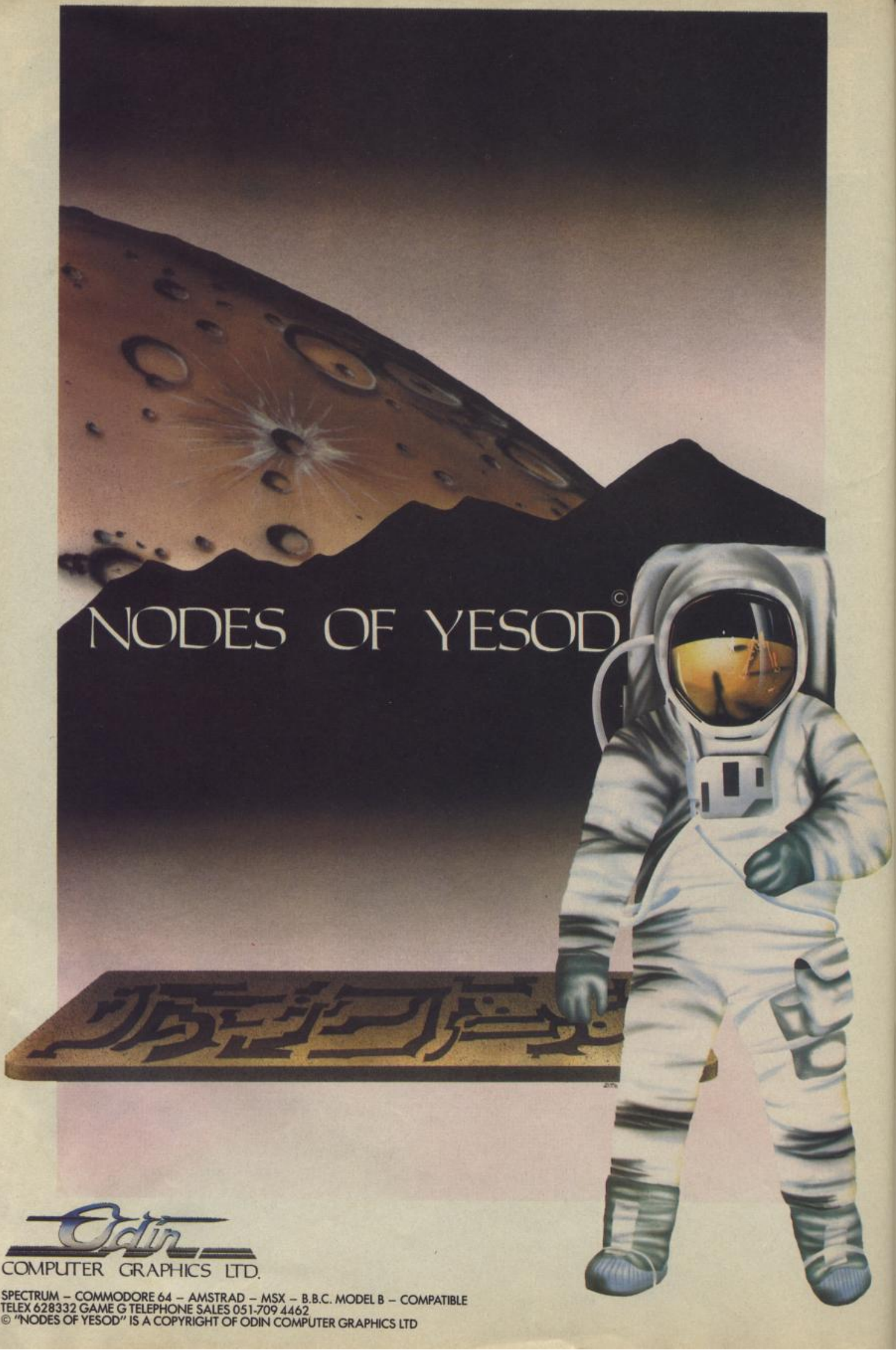
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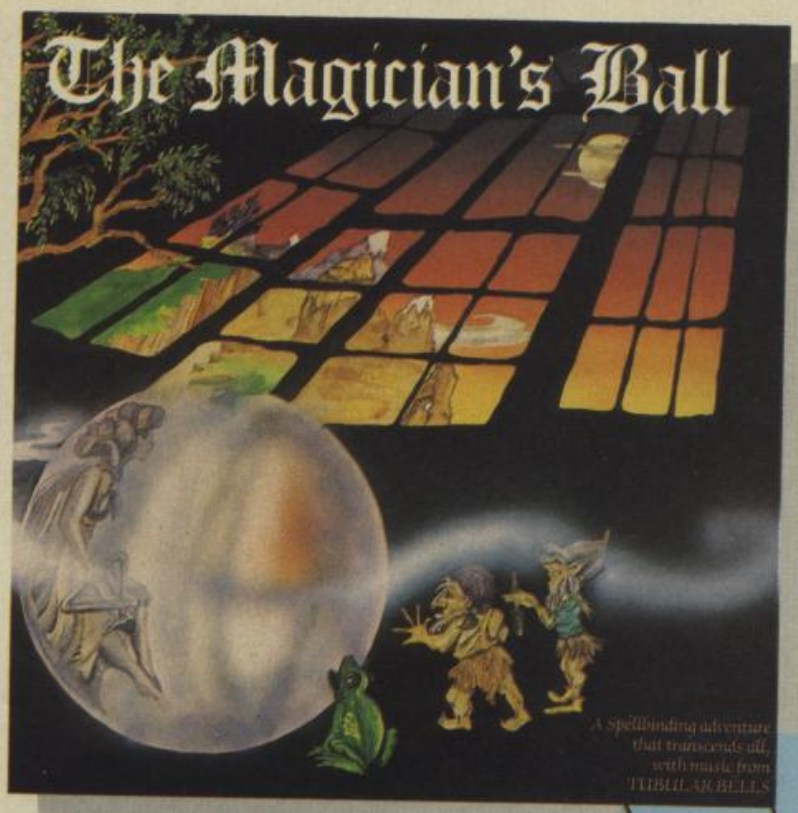

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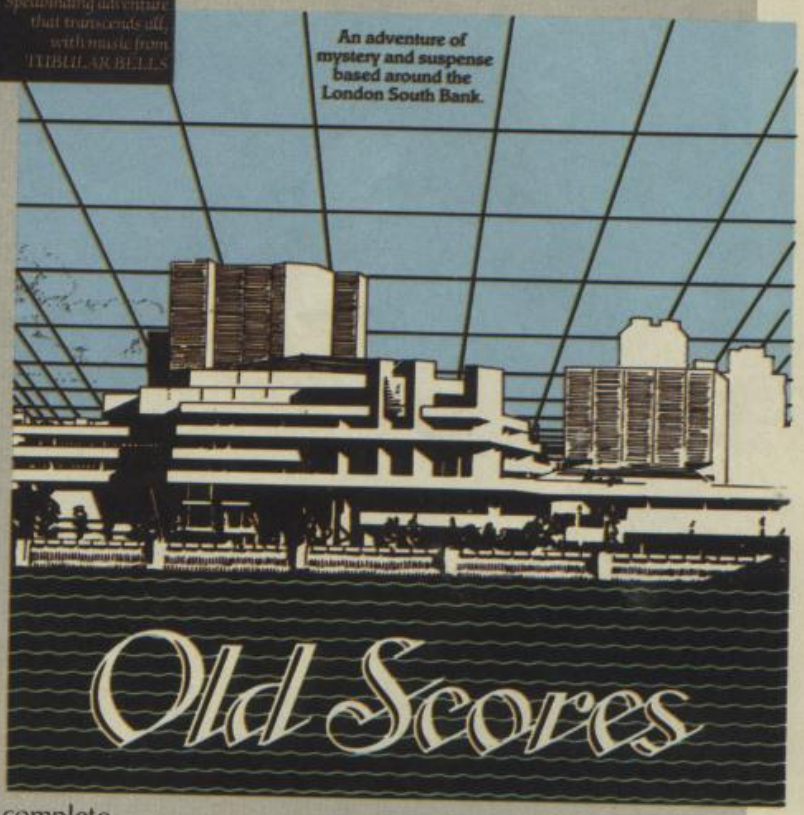

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SCOOBY DOOBY DOO!

So you thought you needed a laser disk system to run an interactive cartoon-based game? The Scooby Squad at Elite believe otherwise . . . we checked out progress on the Spectrum cartoon-action game which should be released this month: SCOOBY-DOO

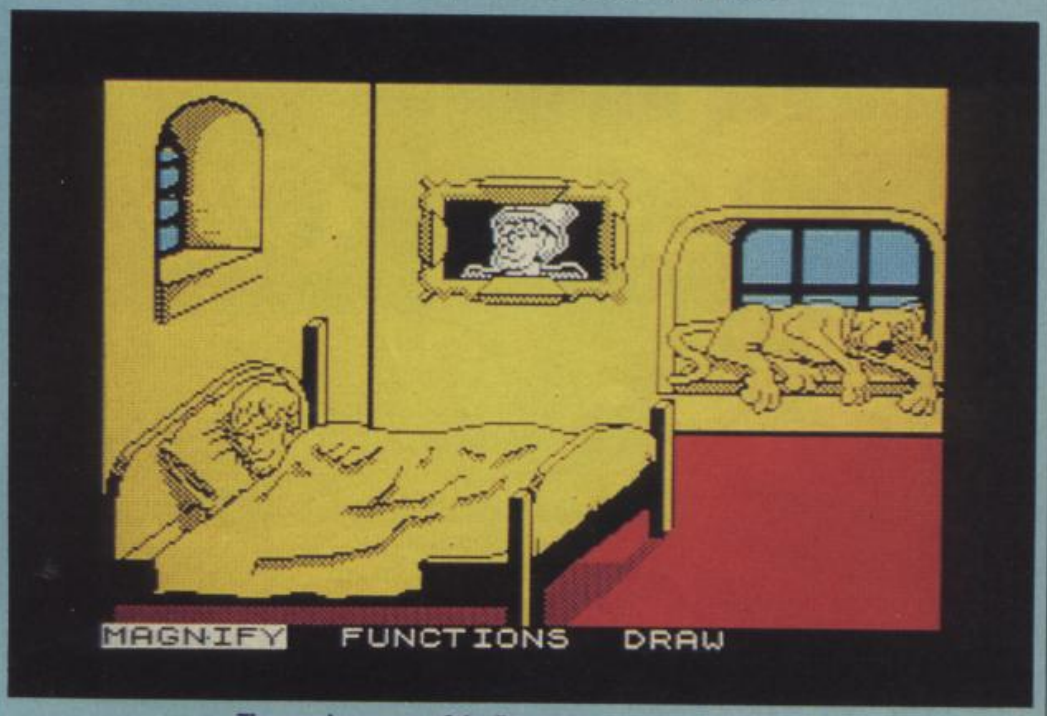
Eighteen months ago, a game called *Blue Thunder* appeared on the market. Written by a lad called **Richard Wilcox**, it was neatly tied in to the film and TV series which featured the mega helicopter of the same name, and it was judged a Good Game. Indeed, it was awarded Game of the Month status in Issue 3 of CRASH (in the days before the Smash had been invented).

Work on *Blue Thunder* began when Richard took a look at some of the Spectrum software available at the time and decided that he could do better. He did. Roping in his father to help market the game, **Richard Wilcox Software** came into being and Richard began a career as a games programmer.

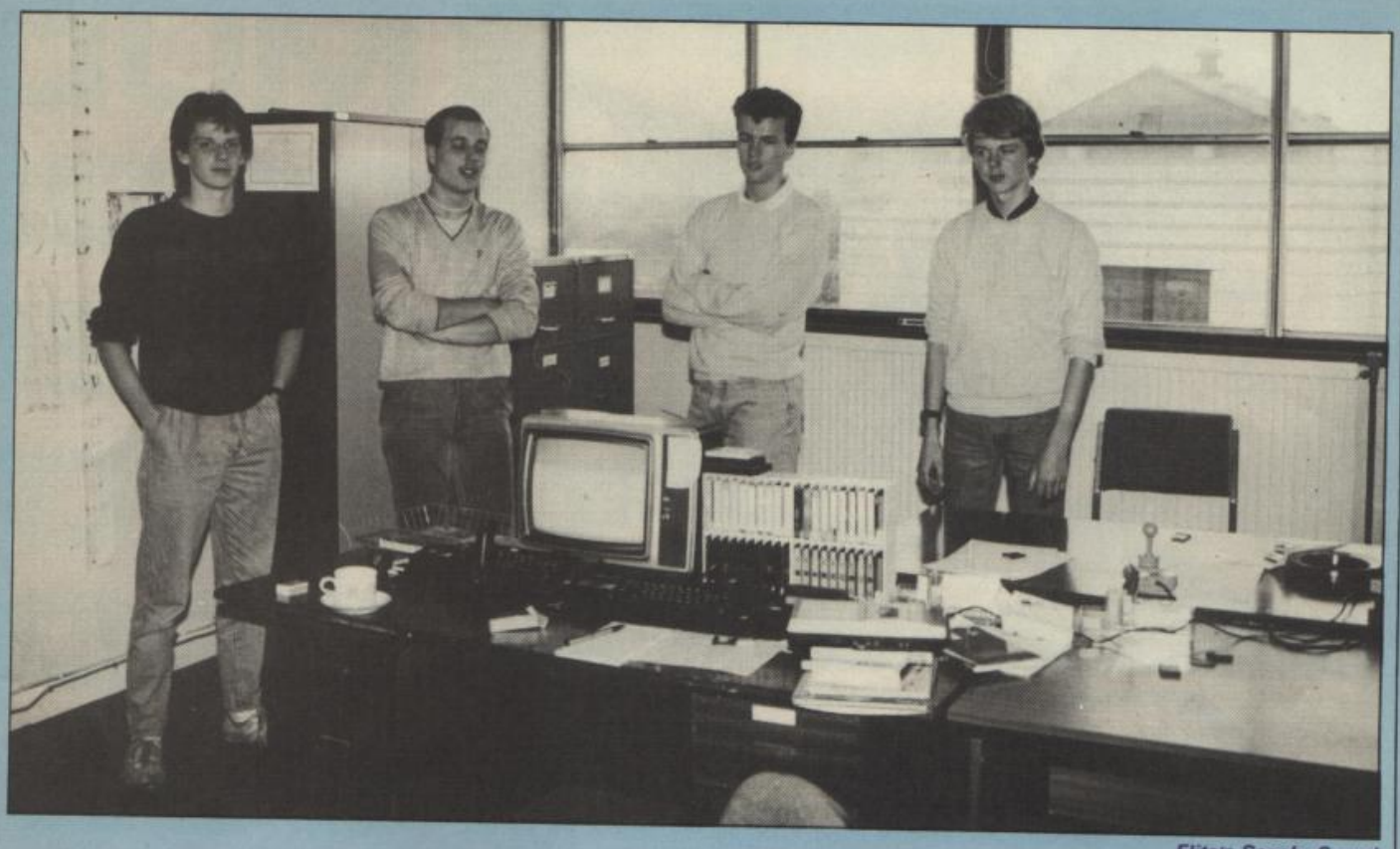
About this time last year *Kokotoni Wilf* hit the streets — by then Richard Wilcox Software had become **Elite**. *Kokotoni* was a pretty good game, too, and things were looking good for Richard, and his father Brian — they roped in another member of the family to assist with marketing and organisational overheads of running a software house, Richard's brother, Steve.

For a while, Elite's fortunes took a bit of a dip. They got involved with licencing deals and released a couple of titles which weren't so hot. They had the licences, but the software let them down somewhat — *Dukes of Hazzard* and *911 TS*. All the same, *Fall Guy* got a respectable rating, and *Grand National* was better still. Their latest game puts them firmly back in the running — *Frank Bruno's Boxing* narrowly missed being a CRASH Smash and is doing well in the charts.

A conversion of *International Basketball* is nearing completion at Elite's Aldridge headquarters, but another game is due for release this month which could set Elite amongst the leading software houses. Yes, it's another tie-in, but this time the game looks like it will do the licenced characters, and Elite, proud.



The opening screen of the first action sequence. A bedroom in Auntie's castle. Shaggy is snoring in his bed, while Scooby slumbers on a ledge. Note the picture — in haunted houses, the eyes tend to move. Suddenly a trapdoor opens beneath Scooby and the startled hound is sliding down a refuse chute. . . .



Elite's Scooby Squad

Rather than produce a straight arcade adventure, the team of programmers working on the game of the cartoon *Scooby-Do* decided to try for a very different game — a game in which you direct the action rather than play in the more usual "up/down, left/right" modes.

From the very start of the project, the plan was to produce a form of computer generated cartoon film, which starred the quintet of characters made famous in their adventures on the TV screen. *Scooby-Do* cartoons all follow a similar storyline — the quartet of humans, aided and abetted by the lovable, easily scared and permanently hungry hound, find themselves investigating ghostly goings-on in a spine-tingling location.

While the artists in Elite's Scooby Squad began studying videos of the cartoons, working out accurate animations from freeze framed action, the programmers set about developing a system which allowed them to compress data and combine screens and animation sequences so that a cartoon film could be squeezed into the Spectrum.

The plot soon developed. Set in a Scottish castle, *Scooby-Do*, the game, features the ghost-hunting chums — Scooby, Shaggy, Fred, Daphne and Velma. Shaggy's auntie owns the castle and has had spook trouble for some time. She finally decides to leave her home forever when who should turn up, but her nephew Shaggy and his friends. Auntie is just leaving as they arrive and the gang persuade her to let them have a go at getting to the root of her hauntings.

Auntie agrees, and decides to go away but only for a couple of days while they try to sort things out for her — if they don't work out what's going on in 48 hours, however, she's leaving and never coming back.

Essentially, the game will feature seven or eight action sequences which are separated by descriptive scenes in which characters in the game interact by meeting together and having a chat. The whole game is played against the clock, and to complete it you will need to go through all the levels and unmask the 'spook' who has been trying to scare Auntie off for so long.

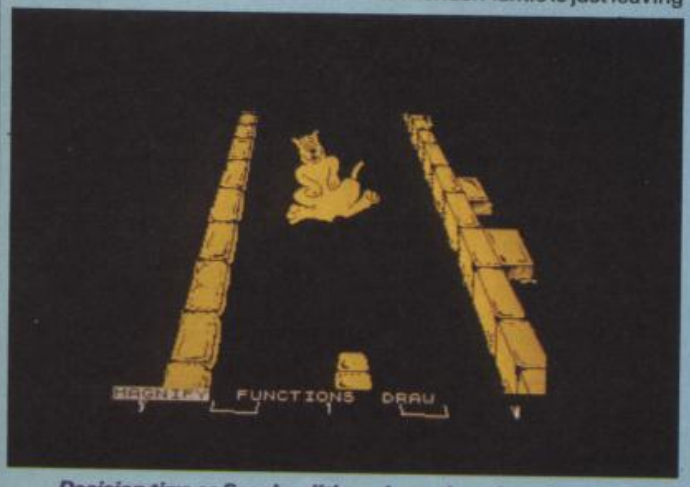
In the action sequences you will follow Scooby and Shaggy as they search the castle and need to help them solve (or avoid) problems as they arise and generally guide them on their way. You drive the action in the game, acting rather like a film director, taking decisions which affect the outcome of events. After each action sequence has been played through, the scene will fade to a descriptive section where you eavesdrop on conversations and can pick up clues, tips and hints which will help you solve the mystery.

The cartoon quality of the game will be enhanced by the changing viewpoints from which you, the player/director, see the action. For instance, as Scooby is lolloping down a corridor you will see him full on, but when he nears a hidden trapdoor the screen might zoom in to show a close up of Scooby's feet approaching the danger spot. Then it's up to you to influence things. . . . Also, the sound effects will be synchronised to the action — helping to create the illusion that you are watching a cartoon and interfering with the outcome rather than just playing a computer game.

To complicate matters, different problems will crop up in the same action scene each time you load up and run the software — the game is not intended to have a single solution. It won't be a single path; play it through once and that's it, you know how to do the game.

When we visited the Scooby Squad they were confident that they had perfected the cartoon generating system that they would use to edit the screens into the finished game, and most of the design work on the individual screens — or 'shots' — from the storyboard had been committed to computer memory with the animation sequences. A few final details needed working out, and then the editing would begin. For with this game creating system, assembling the final program is rather like editing a film or videotape. The raw material is all there, as is the means to combine it into a sensible whole — it's the skill of the editor that accounts for the polish of the finished product.

In the beginning, there was the text-only adventure game. Then came the adventure game with graphics, which developed into the arcade adventure. Elite could well take a significant step forward and become known as the creators of the Cartoon Adventure. *Scooby*'s a game to watch for. . . .



Decision time as Scooby slithers down the refuse chute — time for you, the player to intervene. If you do nothing, Scooby will run into that central lump of stone and you will lose valuable time as the stunned dog recovers from his ordeal. Left or right — quick, make up your mind. You're in the driving seat, after all!

MUD*, GLOR THER QUITE COOL SUD*

There's a great deal of fun to be had, finding your way through a mythical land held within your micro's memory. Whether you're on a quest or a treasure hunt, there's a whole lot of entertainment to be had in adventureland.

And there are a few adventure programs around nowadays that include an element (or two) of interactivity — rather like the original role-playing game *Dungeons and Dragons*. Sadly, however, micro-based adventures haven't progressed to the stage where they can provide an environment which a number of players can explore simultaneously, interacting with one another and generally behaving as if the computer controlled world was 'real'.

A HISTORY LESSON

A handful of years ago, a chap called **Roy Trubshaw** wrote MUD on a DEC computer owned by Essex University. MUD provides an environment in the computer which a number of adventurers may log into and thereby take part in the doings of a complete fantasy world created within the 'Dungeon'. Over the years the original MUD developed and grew under the control of **Richard Bartle** and it achieved cult status — people from all over the country accessed the Essex computer by telephone during the dark hours and tried to fight and scheme their way up through the MUD ranks towards the all-powerful Wizard status. A lot of time and effort went into developing MUD, and it has become quite a game . . .

MUSE BECOMES INSPIRED

Along came **Simon Dally**, big cheese managing director of MUSE — Multi User Entertainments, a company formed to market MUD around the globe. A MUD development language, *Mudl*, was written, and now Multi User games can be written on mini and mainframe computers quite easily. The original MUD has been enhanced considerably and is currently living on a British Telecom VAX, eagerly waiting the official launch at the PCW Show.

WALLOWING IN MUD

To get started as a MUD player on the British Telecom system, you'll need a micro, a modem and communications software which allows you to access bulletin boards — the screen must be able to scroll. Once you have the equipment, you'll need to purchase a MUD starter pack, which retails for £20 and contains a map, your password and ID, instructions on how to play and thirty MUD credits. Further credits can be bought for your MUD account in packs of 50, and cost 20p each — a credit is exhausted every 6 minutes, so MUD will cost you £2.00 an hour to play, plus the cost of a phone call to London.

This can be the painful part. If you live in London, or close enough for you to make a local call to a London number, then your phone bill will increase by 41p for every hour you're logged onto MUD during cheap rate call time (after 6.00pm at night, and at weekends). If, however, you live over 35 miles from London, then the cost the call to London could cost as much as a massive £4.12 an hour. Don't panic too much at this prospect however . . . .the MUD Men are working on the problems involved in providing local call access to everyone. To start with, the service will be launched from London and you'll have to call up direct, but plans are afoot to make the game more affordable to non Londoners.

WHAT'S HIDDEN IN THE MUD?

The game itself is far from trivial. Over one thousand locations exist, there's a whole range of spells and commands available (depending upon your MUD rank), and up to one hundred players could be logged on and in the arena at one time.

The overall aim of the game is for you to work you way up from **Novice** to **Wizard** status by collecting treasures, killing off meanies and opponents and generally achieving things. And the game isn't entirely straightforward and predictable — the Wizards can eavesdrop on players' conversations and alter events to suit their whim. There's no telling what a Wizard might do! You can form alliances with other players who are logged on with you, and achieve things together, or can just get in there and scrap for all your worth. Either way, it's collect the MUD points and keep plugging on, with Wizard status in your sights . . . .

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Crash Competition

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THE GREAT MUD CHALLENGE

To help get the ball rolling, the cunning people at MUD have arranged for a massive MUD play-off between micro magazines, as represented by their readers. We want a **CRASH Champ** who is ready and willing to go on an expenses-paid trip to the London Dungeon and take part in the first MUD Spectacular — a play off between the champions fielded by other magazines.

Each champ will receive a free MUD pack and on-line tuition from an Arch-Wizard in preparation for the contest. The various champions will meet together and battle will commence . . . the overall winner will receive 1,000 MUD credits (worth £200 and the equivalent of some hundred hour's free play), as well as £100 in cash. Second and Third placed will pick up 100 and 50 credits respectively, and of course, a magazine will pick up the accolade of providing the first MUD Champion . . . just make sure it's CRASH, OK!

* MUD is Multi User Dungeon

* SUD is Single User Dungeon

M

THE COMPETITION

What we'd like you to do, to prove that you are an adventurer with the potential to come out on top in the MUD Challenge, is to write a short story. Absolutely NO MORE THAN FIFTEEN HUNDRED WORDS and, if at all possible, typed on A4 sized papersheets if you like, but typed only on one side), or neatly written if you can't type. The theme? Well there are two to chose from. You can EITHER describe a day's adventuring — perhaps as an entry in your diary, or as a narrative told in the taproom of a hostelry as your audience gathers round the roaring log fire to swop tales of derring-do, OR alternatively, you might wish to describe an encounter with a monster, wizard, troll or indeed any other creature or character encountered on your adventures. 'My First Dragon' perhaps?

It's up to you, but get your entry in to CRASH MUD by the 18th October latest, which only gives a little over two weeks, and remember to include your name, address and telephone number if you have one.

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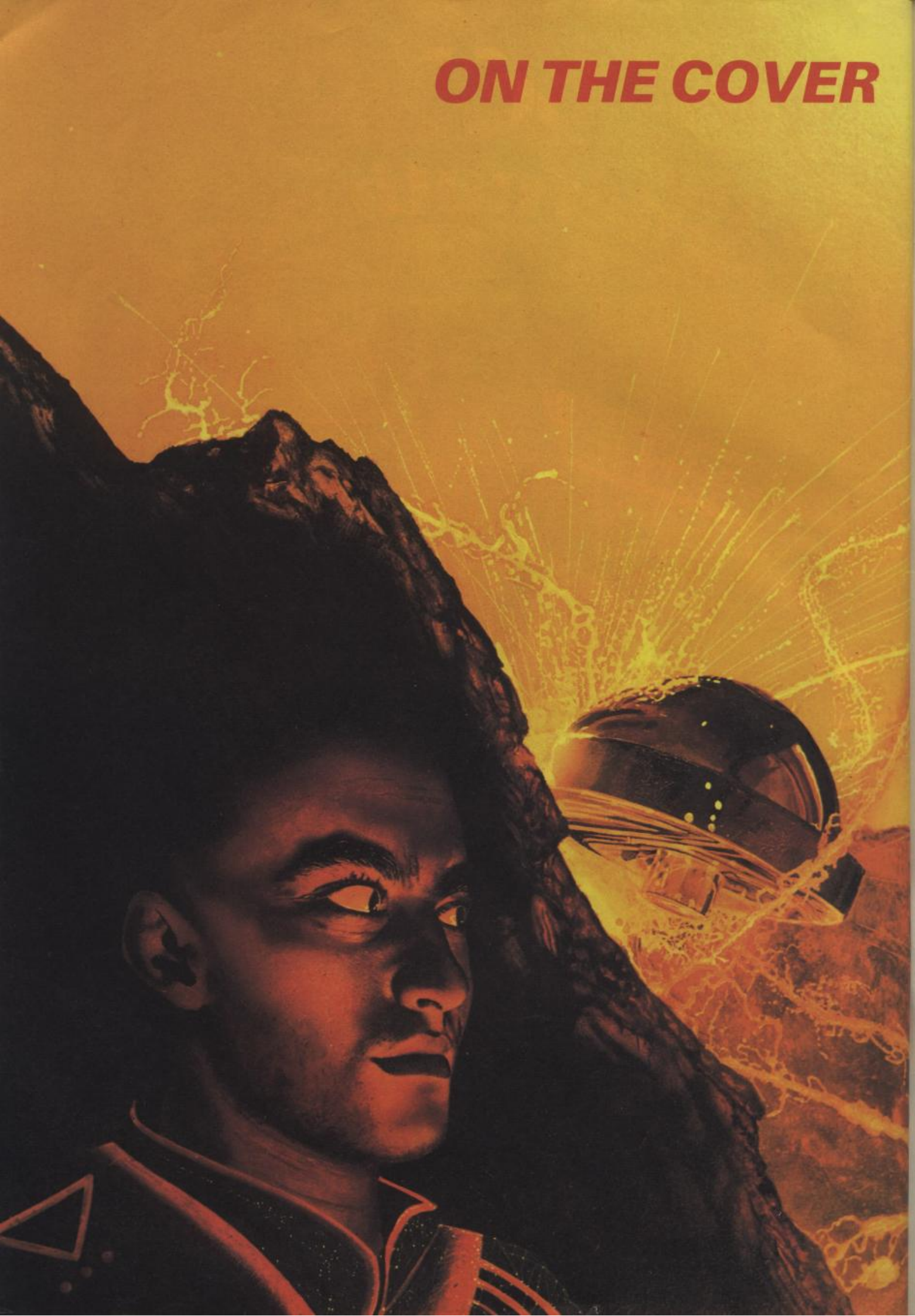


Ian Craig is a slightly rare beast — he's a cross between an illustrator and a fine artist. While he's made a successful career out of producing cover illustrations for science fiction book covers and computer publications, he's currently taking something of a break from illustration and is following his interest in Fine Art photography . . . .

After a couple of years at Salisbury College of Art in the mid seventies, Ian Craig packed his bags and left for Leeds Polytechnic, where he followed a three year course in Communication Design — specialising in illustration in his final year.

With his formal academic training behind him, Ian gathered up his portfolio and left for London, in search of fame and fortune and a career as an illustrator. Soon he realised that the streets of London were not paved with gold: 'I had rather a naive folder of work', Ian explained, 'and I ended up spending a year on the dole painting, preparing another portfolio.'

A worthwhile investment of time, for then Ian found an agent — **Young Artists** of Camden. Young Artists specialise in science fiction illustrations, which fitted in well with Ian's personal tastes. For three years he worked regularly, providing cover illustrations for sci-fi paperbacks.

'I prefer the mystical side of science fiction rather than the hardware', Ian said, 'I'm more interested in what could be called the 'softer' end — alchemy, strangeness, the dreamlike elements. Publishers tend to want hardware — detailed space ships, weapons and the like, so I usually have to try and combine the two elements when producing a science fiction illustration for a client.'

Ian first became involved with the software industry in a queue at the American Embassy in London! The tale began when he was wandering through WH Smiths one day, looking idly at the magazines. He noticed a copy of *Practical Computing* which caught his eye — in those days they had a full colour illustration on the front cover. Ian wrote off to The Man at *PC* who replied that he was interested in viewing a portfolio of work — could Ian meet him at the American Embassy where he was going to be queuing for a visa?

Having shown the very suspicious guards on the door the contents of his portfolio and explained his business, Ian gained admission, found The Man in the queue and was commissioned! *Popular Computing* covers soon led to other commissions within the software industry — Tim Langdell from **Softek** was one of Ian's first software clients. He needed a cover for a book on the Dragon. In three days. Soon Ian was regularly doing work for **Century Books** and **Sunshine Publications** as well as science fiction covers.

To begin with Ian worked in gouache — then he moved to acrylics for the textures they can create and he explored the qualities of that paint. Other artists whose work was sold through Young Artists began using oils (tricky to use with an airbrush; you have to thin them very carefully). 'I began to get a bit annoyed with the way acrylics could subtly change colour as they dried, but had always been reluctant to work in oils as so much careful planning is needed. Oil paint takes so long to dry that you have to organise a picture and plan it very carefully, but the quality of the paint leads to more exciting results. Nowadays oil is my first choice, followed by acrylics and I never use gouache.'

So where does the inspiration for science fiction paintings come from? 'I'm not an avid reader of books — I find it much easier to assimilate pictures. I see all the latest science fiction films as they come out and take a lot of inspiration from the Science Museum; there are some fantastic devices on show there. Every now and again I take a stroll round **Forbidden Planet** (an 'Underground' bookshop in Denmark Street, London) just to see what's going on — I can't deny I am and have been influenced by other artists, particularly those working for Young Artists.

'I take photographs of people which I then use as reference. Once I have got a good photo to use as reference for the central character I find that invention comes easily and I can build a whole world around the figure.'

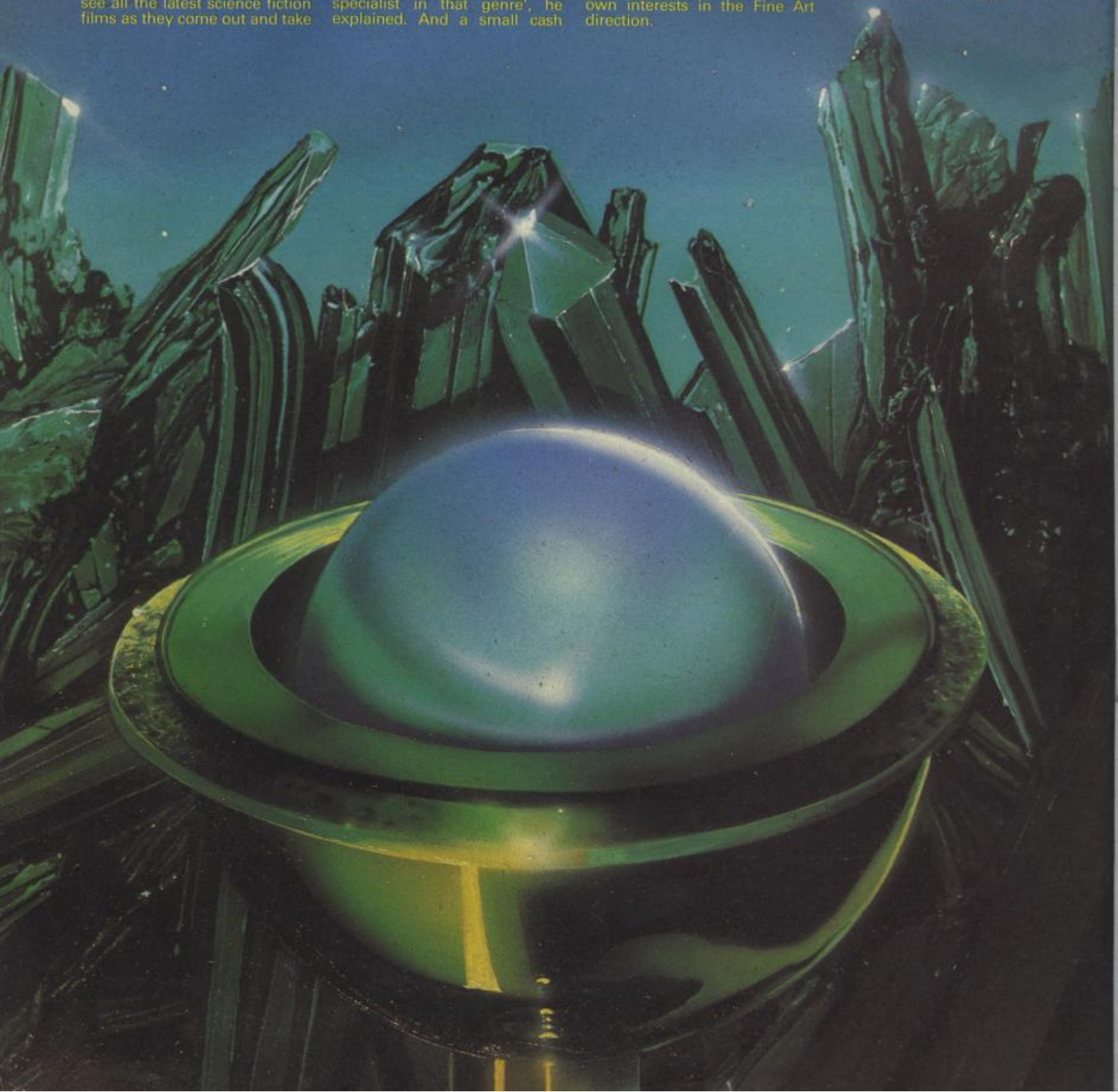
At the moment, Ian is taking a break from full time illustration. Computer book publishers have been cutting back on their lists, and Ian left Young Artists, so he's not got a great deal of illustration work on. 'I wanted to move away from science fiction — I don't want to become a specialist in that genre', he explained. And a small cash windfall came at just the right time to encourage him to make the break.

'I found myself under quite a lot of pressure after a while — sometimes I had three book covers on the go at one time. I began to feel a bit frustrated and unfulfilled, concentrating on science fiction images all the time. Now I'm looking for jobs where I can spend a lot of time on one picture, rather than having to churn out illustrations, each in a couple of weeks. I'd like to get into advertising illustration, maybe . . .'

At the moment, Ian is working on a painting for the box of a Games Workshop boardgame, *Cosmic Encounter*. And is thoroughly enjoying it, working unhurriedly, in oils. While he obviously needs to continue producing illustrations to pay the rent, Ian is effectively treating himself to a sabbatical, allowing himself to follow his own interests in the Fine Art direction.

'I'm interested in photography and have been investing in equipment. I'm interested in photography as an art — although I have been taking publicity photos of friends in bands and theatre groups as a service. I have been working on an exhibition. I hope to collect twelve images, involving texture and colour which have dreamlike, surreal qualities for a show, and so far I have six. They're close ups of still lives and may be combined in an exhibition with sound and light so that visitors are presented with sight and sound together which invades their senses.'

Ian's clearly enjoying his change of direction — no longer is he having to work at breakneck speed, executing a painting in a couple of days. Maybe after his exhibition he'll clear off for a year, possibly to Spain. 'I like the Sabbatical approach to life' he said.'



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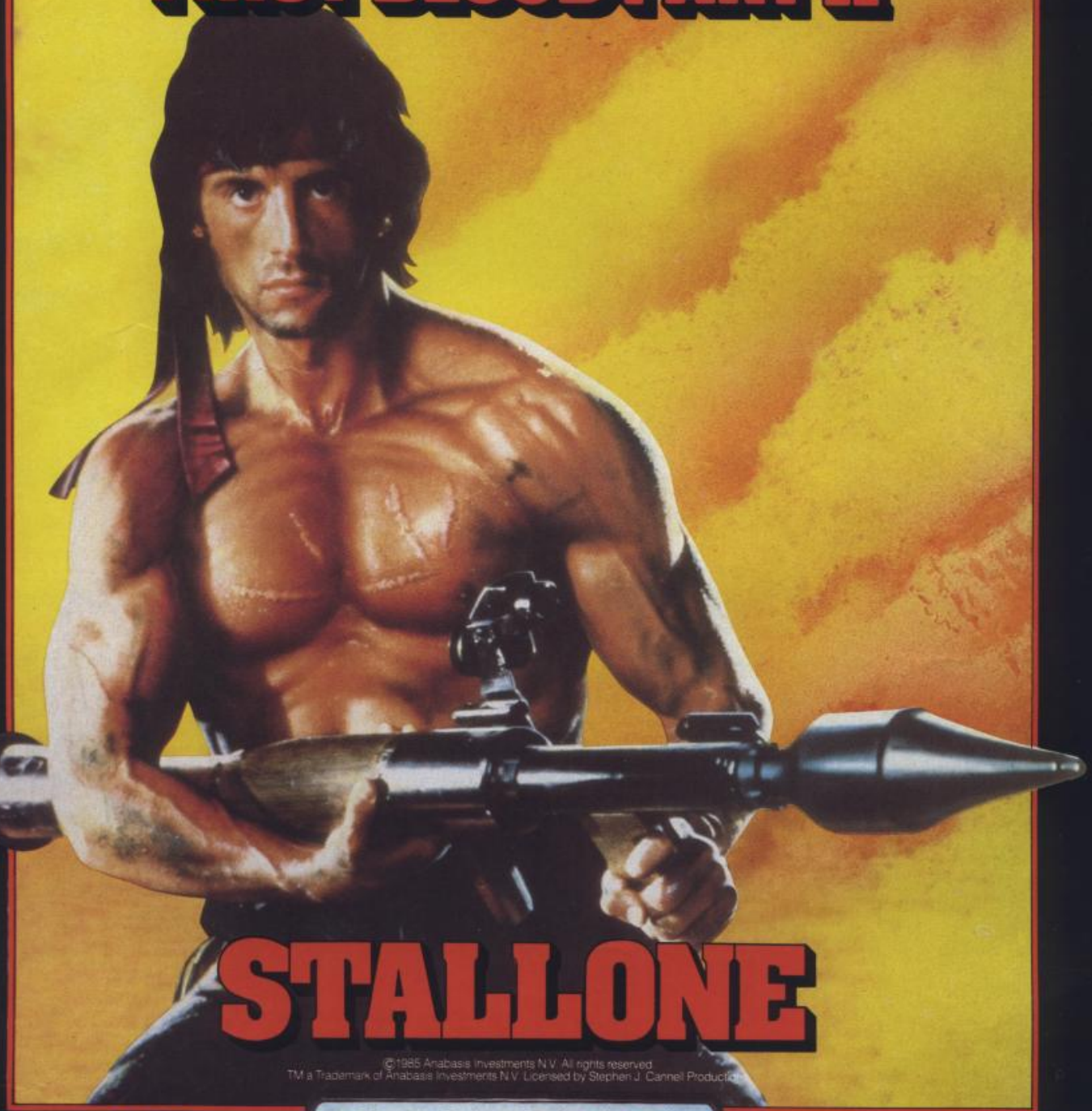

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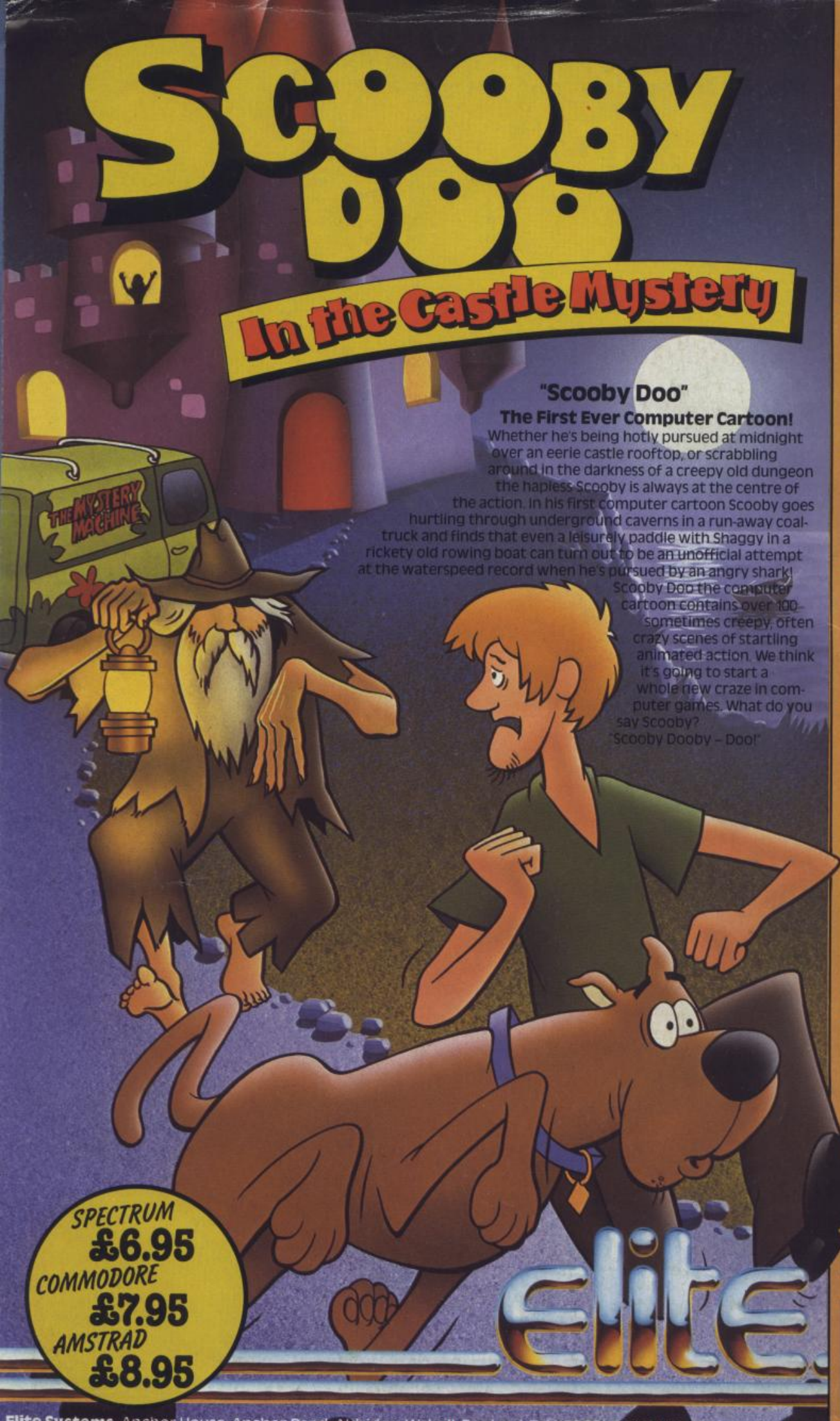

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