Personal Computer

75p April 1984

GAMES

YOUR COMPLETE GUIDE TO MICRO ENTERTAINMENT

CBM 64
Game of the Month plus three PCG hits!
Type in Robotank and roll into action

VIC 20
Enter our Mud Bath for high-res fun
Chariot Race – a runaway hit

SPECTRUM
Leap inside for a great Frogger listing
30 new games reviewed and rated

DRAGON
PCG medal for the new war-game
D-I-Y with our Solitaire program

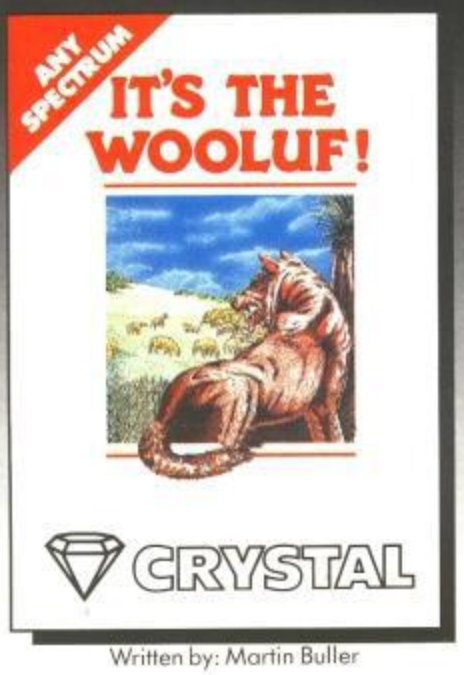
JOYSTICK JURY
18 sticks on trial

- 100 adventures to be won for BBC, ORIC, LYNX, SPECTRUM...
- 100 new games reviewed for ATARI, ELECTRON, BBC, VIC 20...
- 100 superb programs named for ORIC, CBM 64, LYNX, ZX81...

TWO NEW RELEASES FROM CRYSTAL

IT'S THE WOOLUF!

TUBE WAY ARMY

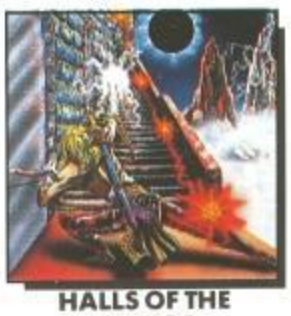


Written by: Martin Buller

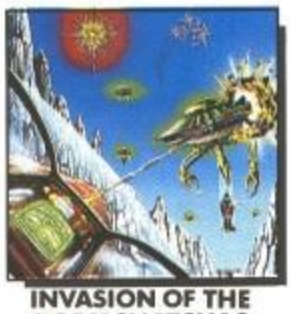
Written by: Rainbow Software

From the creators of 'Halls of the Things,' 'Invasion of the body snatchas,' and many other software classics come these exciting new games. Games to tax your judgement and puzzle and frustrate you for months on end. Don't forget our other titles, which have attracted enthusiastic reviews like "Spectacular, one of the best games I've seen"... POPULAR COMPUTING WEEKLY and "Excellent, dangerously addictive, could change the Spectrum games scene overnight"... SINCLAIR USER.

COMING SOON RETURN OF THE THINGS

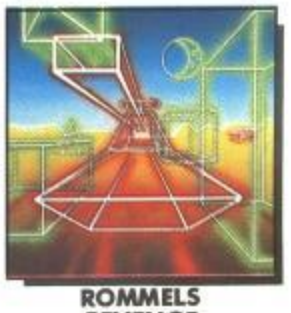


HALLS OF THE THINGS
Written by: Neil Mottershead, Simon Brattel and Martin Horsley



INVASION OF THE BODY SNATCHAS
Written by: Simon Brattel and Neil Mottershead

Written by: Graham Stafford



ROMMELS REVENGE
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THE DUNGEON MASTER
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All titles for 48K Spectrum unless otherwise stated

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Solve the puzzle and you could win one of 101 gargantuan games.

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We sift out the damp squibs from the pulsating mega-zaps.

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This month's vast review section contains a bonanza of amazing games for the COMMODORE 64 including our Game-of-the-Month. Hits also for SPECTRUM, DRAGON and VIC 20.

108 GAMES TO BUY
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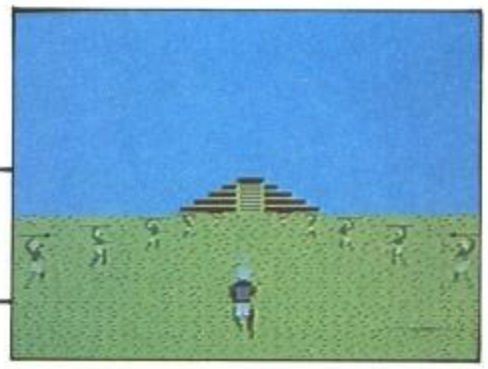
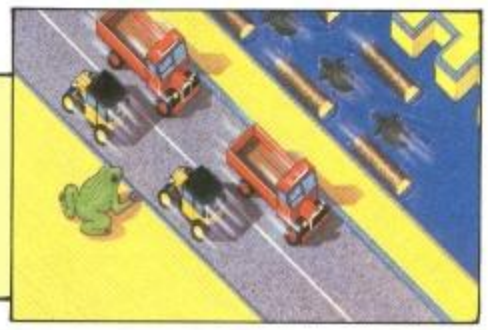
SPECTRUM Hop along to enter this excellent version of Frogger
DRAGON It's Solitaire time with this original game
VIC 20 Catch the washing off the line to avoid a Mud Bath
COMMODORE 64 Play a round of computer warfare with Robotank.





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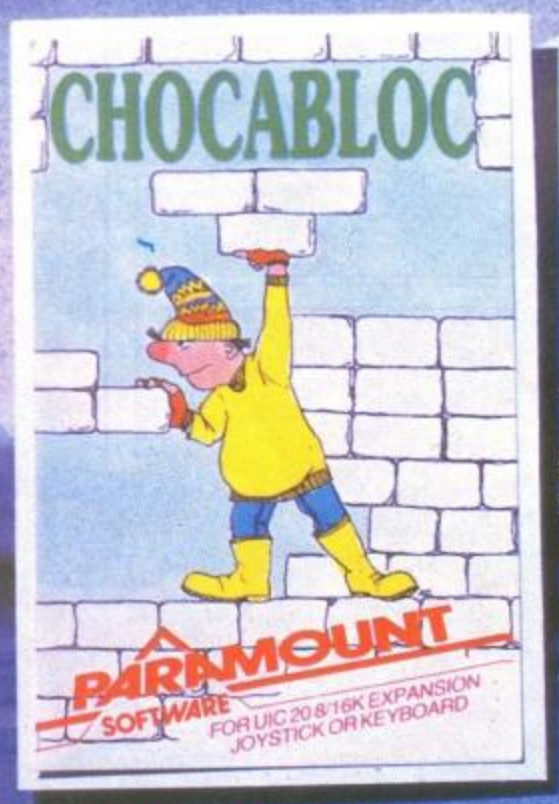

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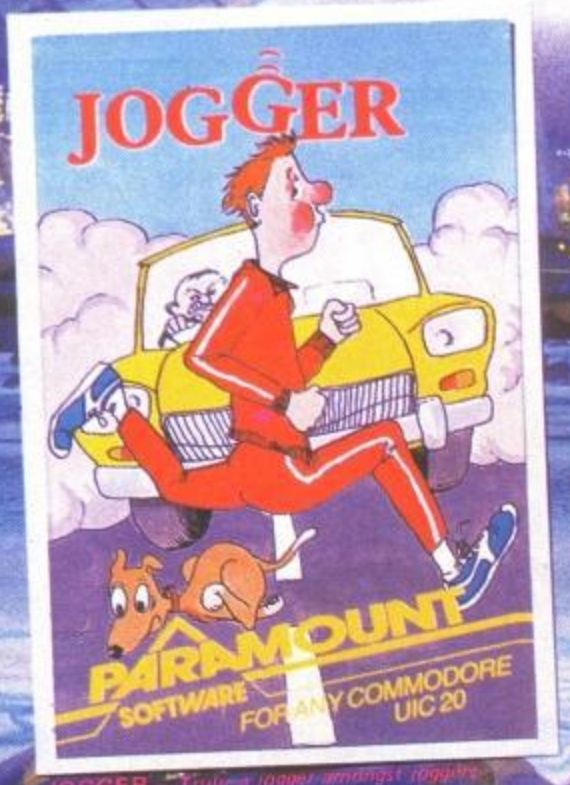

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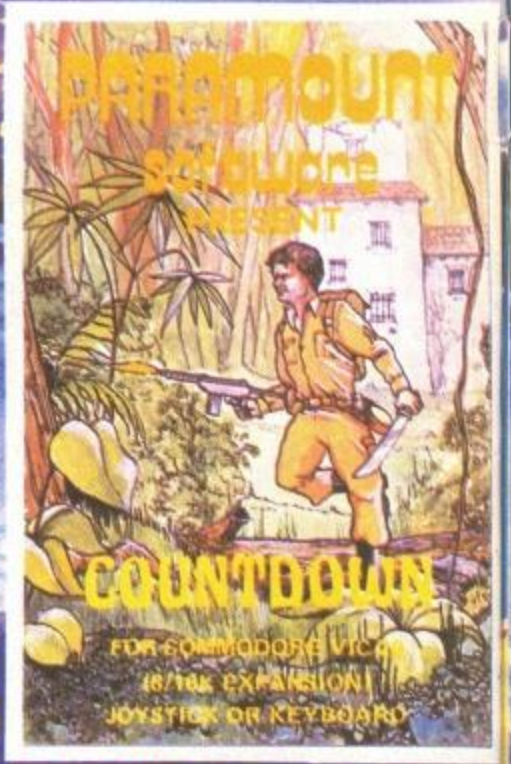

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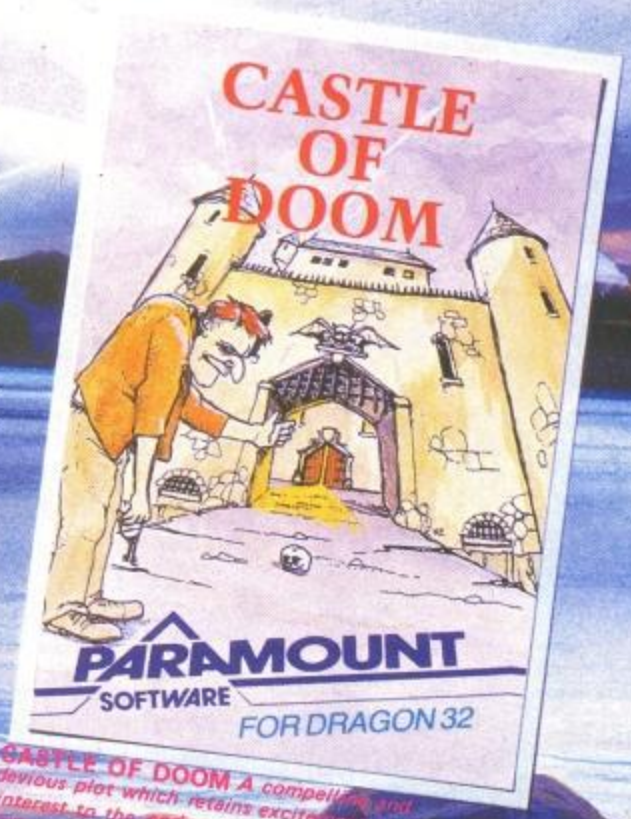

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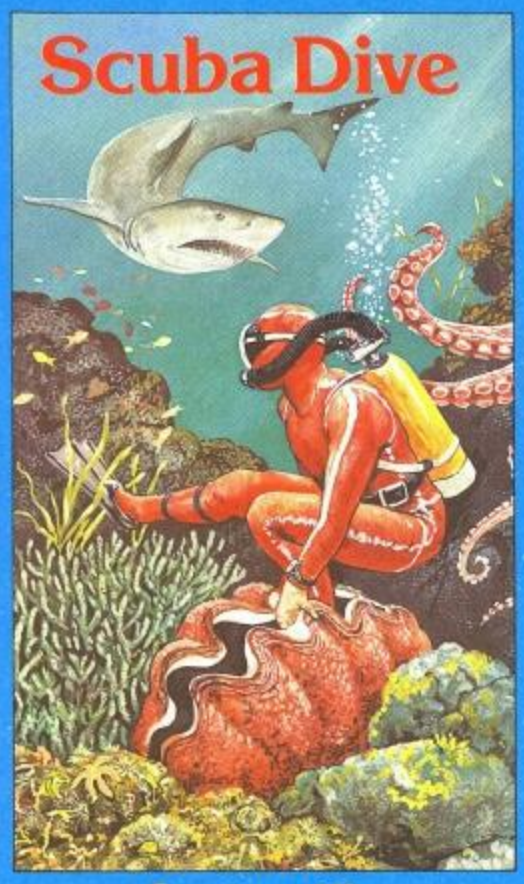

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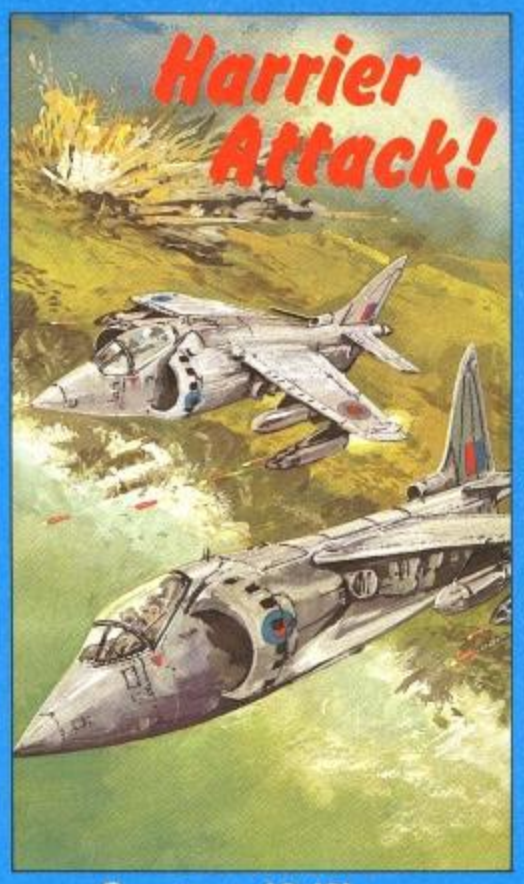

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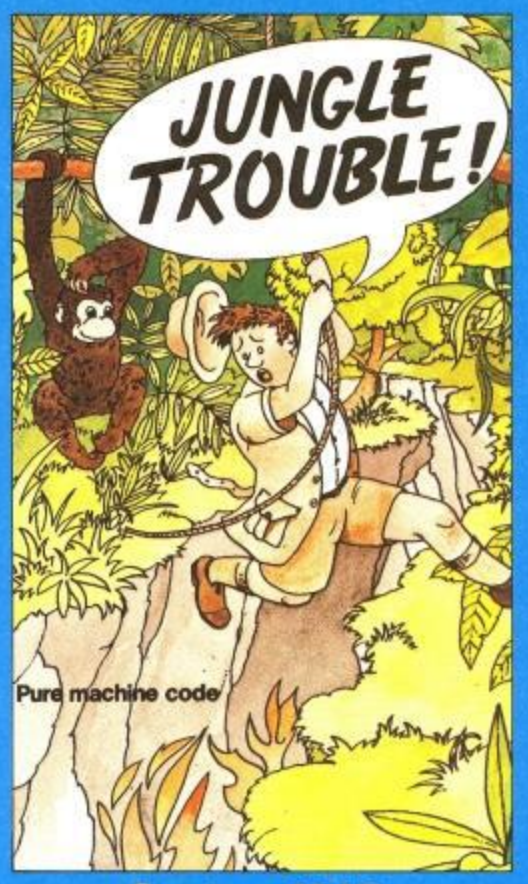

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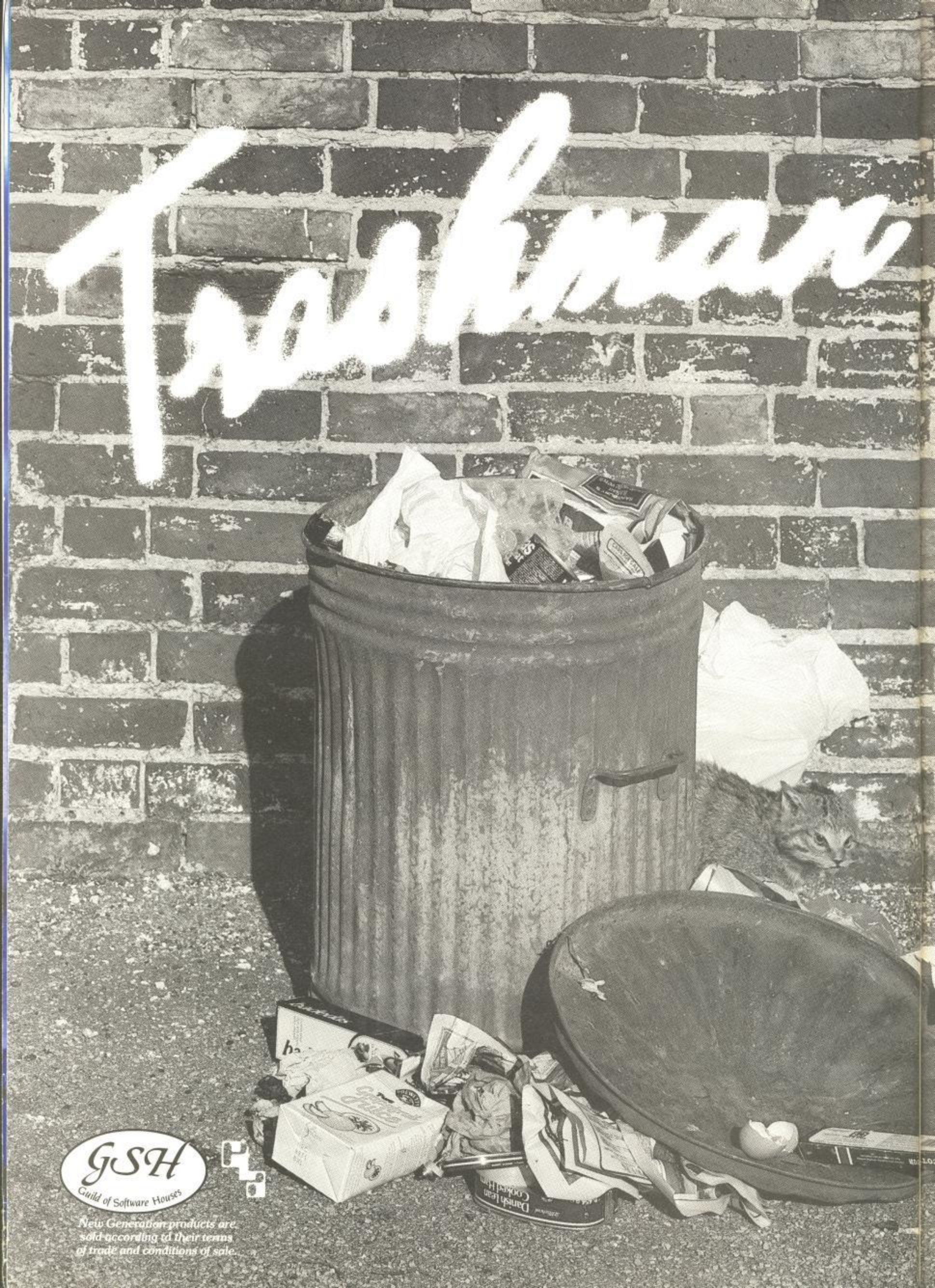
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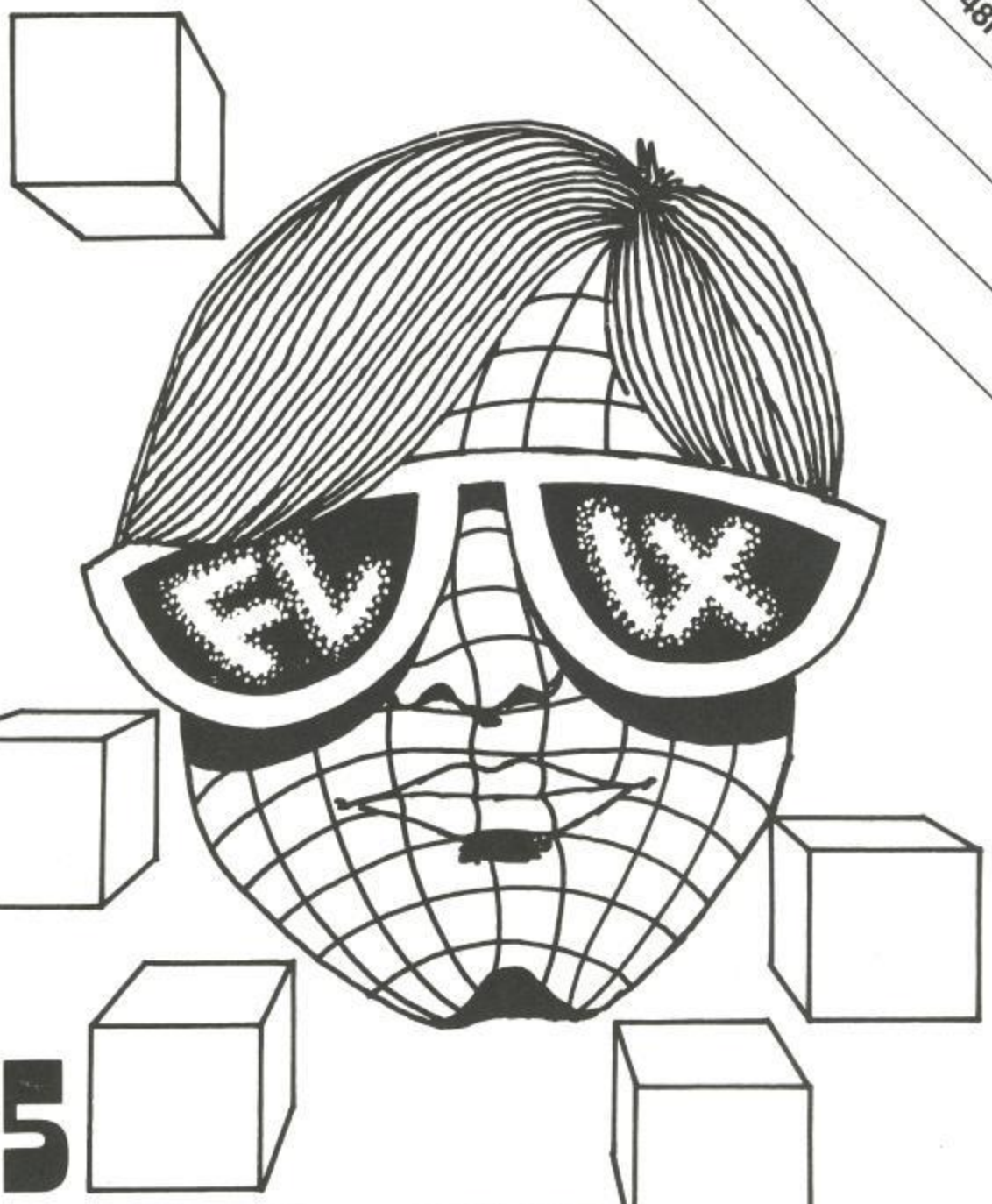

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*

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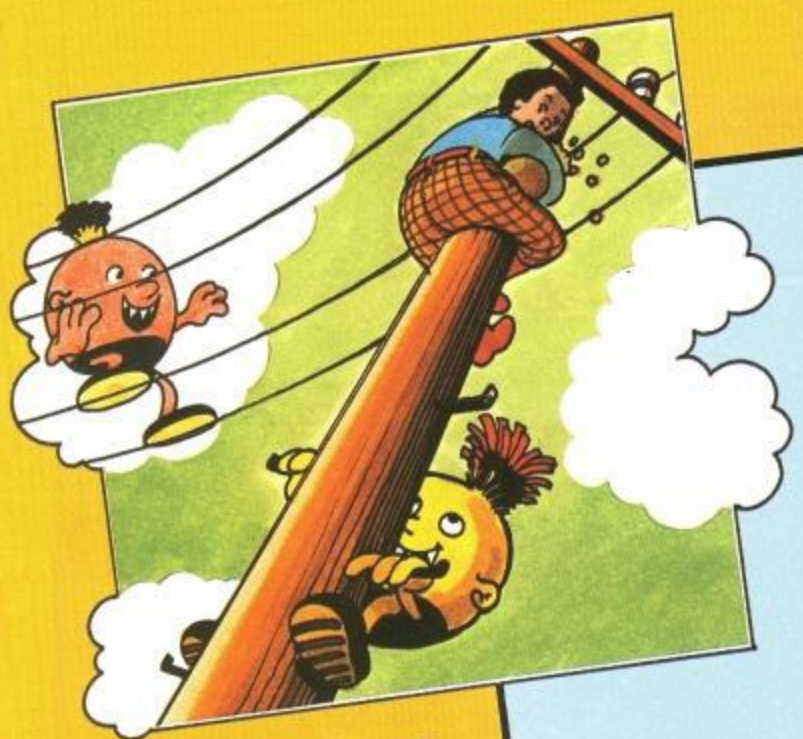

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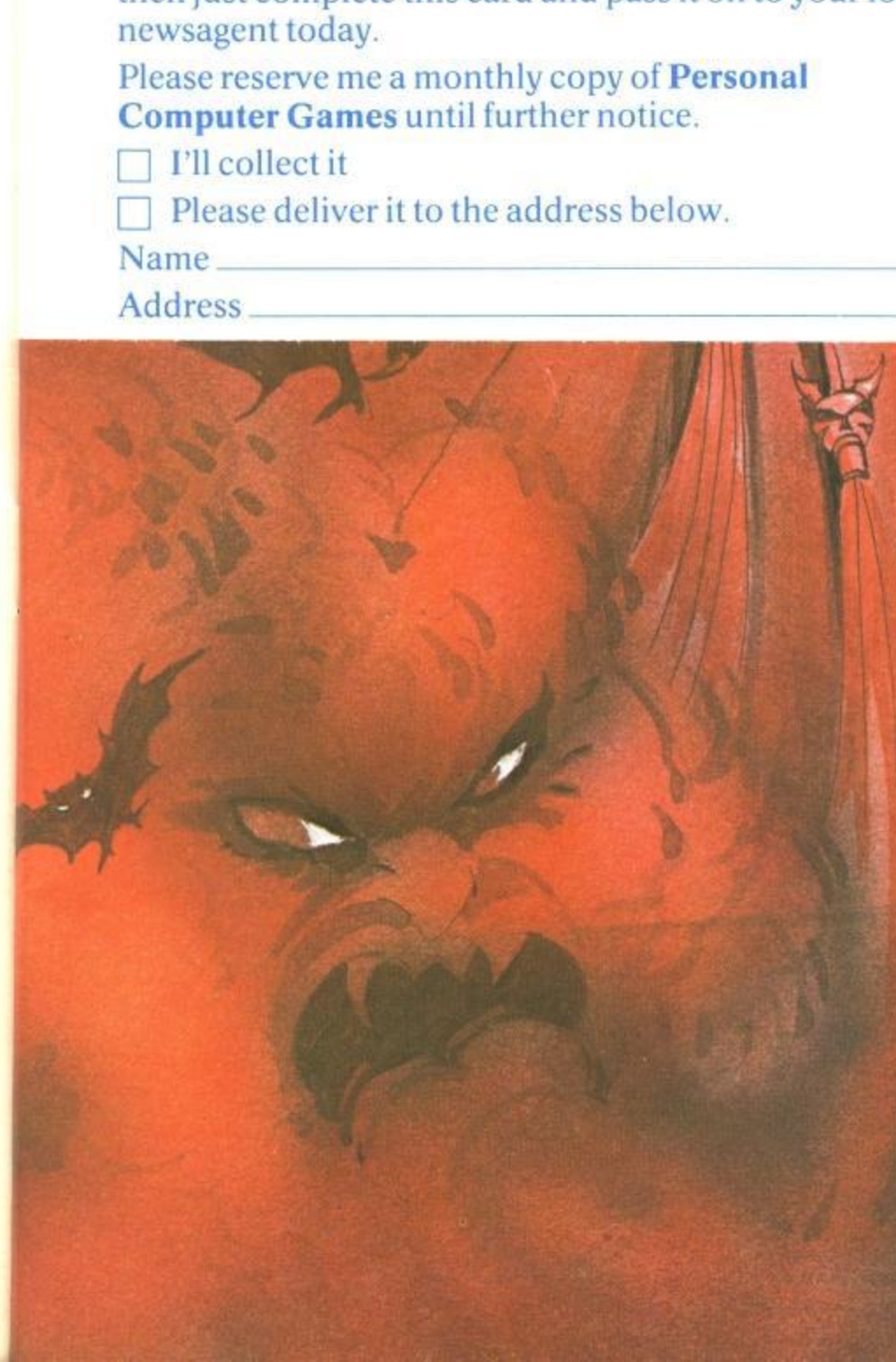

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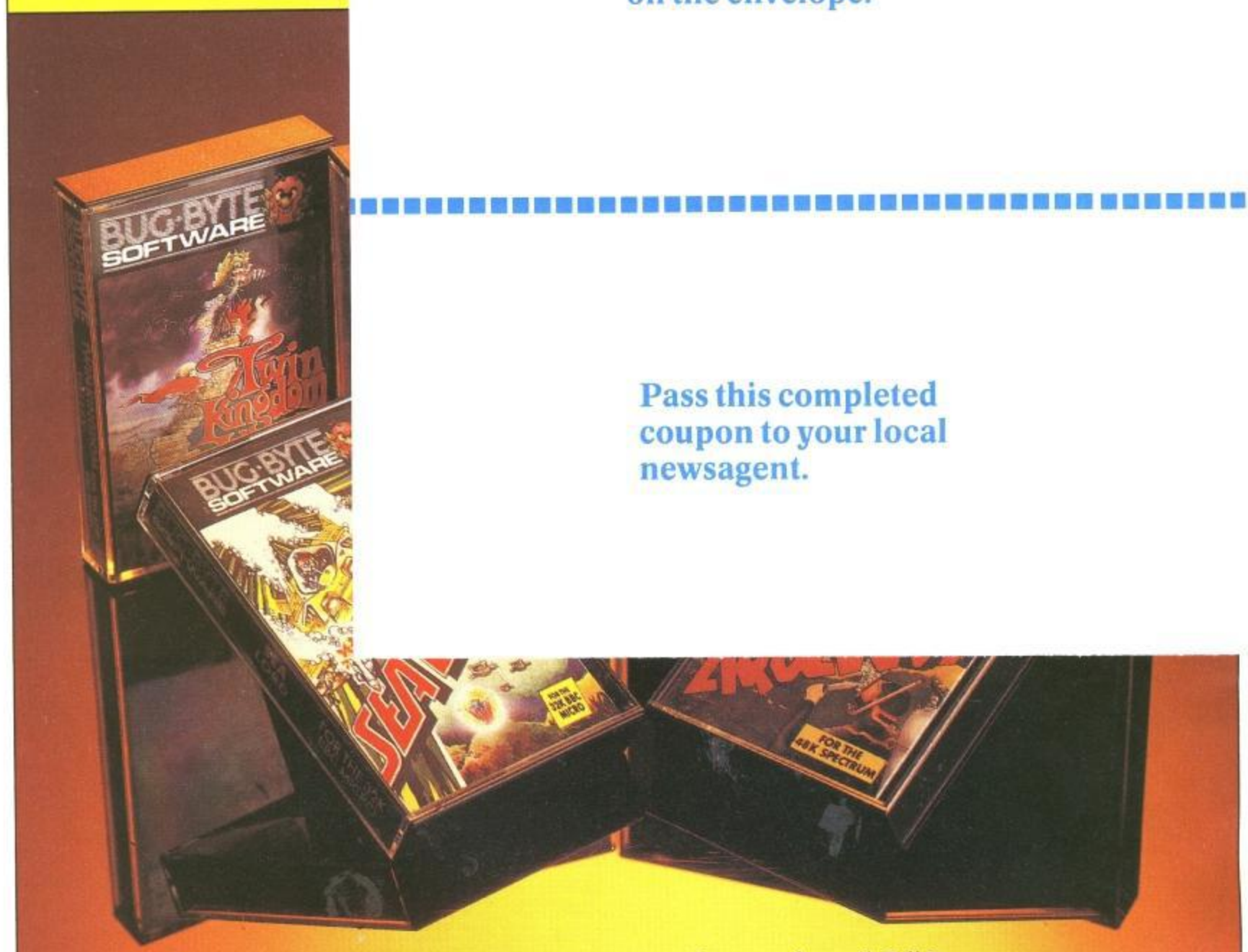

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WARNING

This noticeboard is intended purely for passing on important information and informed opinion to readers of PCG. Anyone caught placing jokes, drawings or other offensive material on it will be forced to spend eight hours playing Virgin games.

The Ayatollah

Teacher to boy: which computer language do you understand: Basic, Forth or Lisp?
Boy to teacher: Lithp.

What nonsense some people talk about their computers. 'I use it for all manner of important applications,' they grandly proclaim. 'Like adding up my cheques (couldn't do that before!) and keeping track of how many calories I'm eating.'

And then they add in a shy, whining voice. 'Oh, and I occasionally play the odd game on it, although of course that wasn't why I bought it.' Piffle!

It's perfectly obvious to us that computers without games are about as interesting as footballs without air.

Even the gentle art of programming would rapidly become a bore were it not for the prospect of a mega-zap afterwards to sooth the aching brain.

Let's admit it. Electronic entertainment is what the home micro revolution is all about. So people who say games aren't important want their CPUs resoldering.

As if saving the earth from attacking alien forces wasn't important. As if rescuing the girl from Kong's brutal clasp didn't matter.

You won't find such poppycock in PCG. We, like you, know that micros are fun, and our simple, dedicated aim is to help you to extract the maximum possible pleasure from your machine.

So plug in, sit back and enjoy.

The PCG team

SEND US YOUR HIGH SCORES

Forms are beginning to flood in from people ready to brave the PCG Challenge Chamber. Why not join them? Next month we'll be printing the names of the nation's best gamesters.

So if you've recorded a huge score on a popular game, just fill in the form and send it to us. But remember, you may be asked to come to the Challenge Chamber and prove your claim...

OK – I'll dare the Challenge Chamber

Name .....
Address .....
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Game ..... **Machine** .....
My record score is: ..... **scored on (date)** .....
in a game lasting ..... **mins** ..... **secs.**
Signed .....
Here are my tips for playing this game well.

.....

(This portion to be filled in by witness)
Name .....
Address .....
Telephone no. (if possible) .....
Occupation .....
I confirm that the above claimed score is genuine.
Signed .....

Post this form to Challenge Chamber, Personal Computer Games, Evelyn House, 62 Oxford Street, London W1A 2HG.

PROGRAM IDEA

If you play chess regularly, why not write a program which will turn your computer into a chess clock? You should get the program to allow you several options of play – such as 40 moves in two hours or speed chess, an entire game in 5 minutes per player. A good program would be better than a real chess clock, because it would show you at a glance how many moves you had left to play and the time remaining.

Q. What do you get when you cross a home computer with fried potato?
A. Micro chips.

RING THE PCG HOTLINE!

Hi there! Commander Chance calling you on the PCG hotline. Readers will already know that no job is too tough for the Program Control Guardians as each month we risk life and limb INSIDE computer game best sellers.

But I don't have to tell you that things can be pretty exciting (or sometimes nerve-racking) just at the keyboard or joystick.

So ring us on the hotline any time – day or night – and sound off about anything that grabs you (or bugs you) in the world of micro games. Each month we'll pass on the most interesting comments.

Last month I had a nasty shock when I took on *Planetoid* and was zapped by a mutant – proving that appearances can be deceptive ... like that great cover on the game cassette you bought that turned out to be a waste of money. If you've got a story on this kind of rip-off I'd especially like to hear from you – like I said, day or night – it's time some of the software baddies got bit-blasted!!

BABY LYNX TO GO

The 48K Lynx is to be phased out of the British market.

Sally Lang, spokeswoman for Camputers, told PCG that the 48K model would "vanish from Britain" as the company concentrated its resources on the 96K and 128K machines.

The 48K Lynx has had a hard time in Britain, with software slow to materialise. Recent price cuts have left the machine more expensive than others offering greater power and better facilities.

The 'baby Lynx' still sells reasonably well in Europe, however. Owners not wishing to upgrade are therefore assured of continuing support – for the time being, at least.

HULK BREAKS OUT

The Incredible Hulk, Spiderman and Captain America will soon be bursting through your monitors in a series of new graphic adventures from Adventure International (UK).

The Marvel Comic heroes are part of a ten-year licensing deal signed with the well-known adventure game writer Scott Adams.

Each game will come with a comic in which the storyline breaks off, leaving the player to continue on tape.

The first program, *The Incredible Hulk*, is due for release at the beginning of May. The data base will be written by Scott Adams himself while the graphics are to be created in conjunction with Marvel's own artists.

Adventure International hope to have three more marvellous adventures out before the end of the year.

The Incredible Hulk will be rippling his muscles and leaping into action on the Atari, Spectrum, BBC and Commodore 64.

FANTAST SHOW

Packs of games, packs of stars, packs of fun. That's the promise of the PCG Easter Show.

It's to be held at Solihull Conference Centre in the West Midlands on April 20, 21 and 22 and already it's shaping up as the most exciting games event of the year.

As well as dozens of software houses demonstrating their latest games, we'll be running a series of exciting competitions aimed at tracking down the best games players.

Those who attend will have the chance to win an Atari computer and many other fabulous prizes.

Also at the show we expect to launch an amazing new game

GENIE COMPETITION ANSWERS

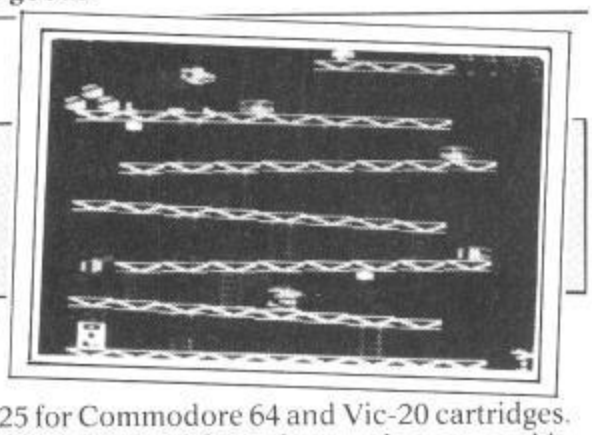
Here are the answers to the 15 double clues in the challenging competition we printed in our Dec/Jan issue.
1a. Repton 1b. Kings Ethelbald and Wiglouf 2a. Longford 2b. 1870 3a. Ashbourne 3b. Shrovetide football teams 4a. Keldeston Hall 4b. Adam Bede 5a. Silk 5b. Aero engines/bone china/clocks 6a. Heights of Abraham 6b. Riber Castle 7a. Chatsworth 7b. Emperor Fountain 8a. Eyam 8b. Cucklett Church 9a. Little Longstone 9b. Monsal Dale Viaduct 10a. Bakewell Pudding 10b. 14th century 11a. Over Haddon 11b. Martha Taylor 12a. Arbor Law 12b. Bronze Age 13a. Gotham 13b. Canal Boats 14a. Gritstone 14b. Sheep 15a. Mercia 15b. Mock Beggars Hall.

And the Mystery Location? Mock Beggars Hall, an anagram of the first letters of all the 15a answers.

As stated in our March issue, the winner is Graham Simmons of Amersham, Bucks who, after hours of research, came up with the right location.

He receives a complete Colour Genie system including colour TV, and disk drive worth £1,000.

Another worthy entrant was Edward Hudson of Oakham, Rutland. His letter describing his amazing attempts at solving the competition had us in stitches but, alas, failed to come up with the goods.



● *Donkey Kong for the Vic 20*

ATARISOFT GAMES ARRIVE

Atarisoft's conversions of popular arcade games for the Vic 20 and Commodore 64 have at last been completed, but the news for gamesters is mixed.

First the good news: most of the programs are of excellent quality.

And now for the bad news: they are very expensive, weighing in at a hefty £20-£25 for Commodore 64 and Vic-20 cartridges.

Donkey Kong for the Vic-20 is one of the most impressive conversions. It has all the features from the arcade game and its graphics are, for the Vic, very clear. The screen, though, is rather small and the game is a bit fast even at the lowest level.

The versions of *Defender* are curious. Contrary to what you might expect the Vic version is superior to the one for the Commodore 64. On the Vic the game is closer to the arcade version and is much faster. Even though the graphics are less clear *Defender* is a more satisfying experience on the Vic.

It will be interesting to see how well the Atarisoft conversions sell. None of the games are original and, although they are good versions, the price may be a deterrent for a lot of games-players.

humming world of micro games

TIC GAMES

called *The Final Conflict*. It's a computer-moderated game which hundreds or even thousands of people will be able to play at once.

Entry to the game will be open to all PCG readers, and progress will be charted in the magazine each month.

The show will also be a very special event for music lovers. The annual Radio One music marathon is being broadcast live from the exhibition hall.

The marathon extends right through Easter Saturday. A long list of celebrities will be attending to answer questions on music put by half a dozen Radio One DJs. Last year the event attracted Queen, UB40, Phil Collins, Alex Higgins and many others. Proceeds from the event go to charity.

The next issue of *Personal Computer Games* will include a special pullout show guide with full details on the companies attending.

See you there!

GAMES LATEST

Fantasy Software are bringing out a version of their best-selling Spectrum program *The Pyramid* for the Commodore 64. The company claim a massive 120 different types of alien, which should keep even the most dedicated zapper on his toes. The game will retail at £6.50.

Anirog bring out the big guns for the Commodore 64 with a 60K blockbuster program called *Space Pilot*. Based on the arcade game *Time Pilot*, the game costs £7.95 and loads in under two minutes using a special 'turbo' loading routine.

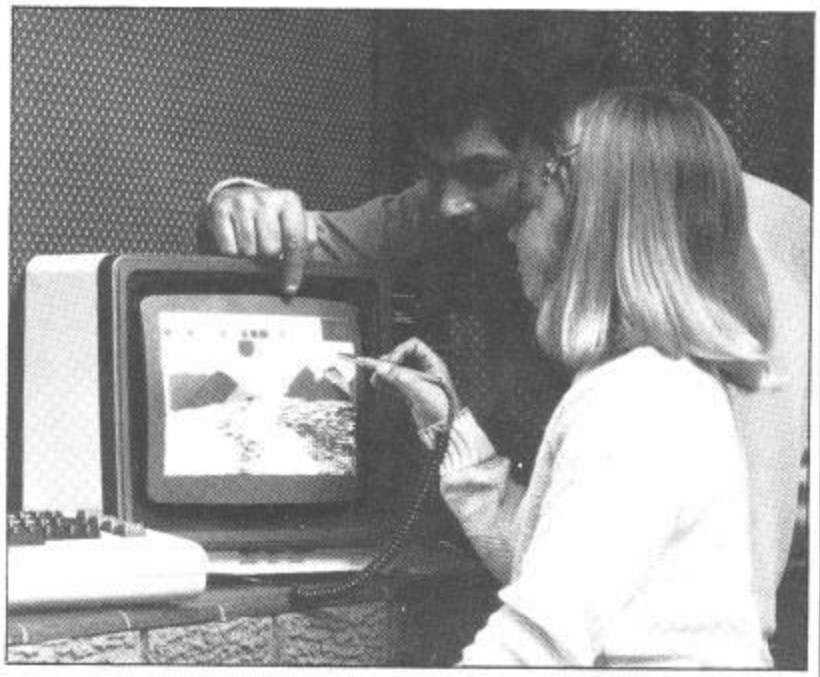
It's back to the stone age with Alligata's game *Neanderthal Man*. Protect your cave-mates from the primitive nasties and gather food on your BBC for £7.95.

While Alligata languish in the shades of prehistory, Melbourne House are battling it out in the middle ages with their new arcade game *Mediaeval Castle*, available in April for the Spectrum at £5.95.

Grandmasters will welcome *Colossus Chess* from *CDS*. Big claims are being made for the power of this new program, available on the Commodore 64 for £10.00.

Board games are back in fashion, it seems, following the success of Psion's *Scrabble* for the Spectrum. *Little Genius*, a new entry into the software market, is putting out versions of Scrabble, Cluedo, and Mastermind for the popular machines.

The games should be available in April or May of this year, and will cost somewhere between £9.00 and £14.00.



COMMODORE PAINTING

Paintbox from Dams for the Commodore 64 gives a palette of colours on the screen which you pick up by touching the screen with a light pen. You pick up various shapes, triangles, circles, rectangles, and lines, and draw these in whatever dimensions you like on the screen.

You can draw freehand but the best results are obtained using the predetermined shapes.

Four pictures can be retained in memory which allows animation. Pictures can also be saved to disk for recall, even from your other programs.

Animate, Bounce and Cartoon are advanced modes of operation. Pictures in memory appear in turn, move forward and backwards, and reappear in sequence like a cartoon.

£29.95 includes three games programs. In *Flack*, you indicate where your anti-aircraft bursts are to occur. The enemy aircraft then approaches at a random height, and you cause the explosions at your chosen moment.

Melody enables you to use the lightpen to control music, played from a keyboard indicated on the screen.

SCREEN SHOTS

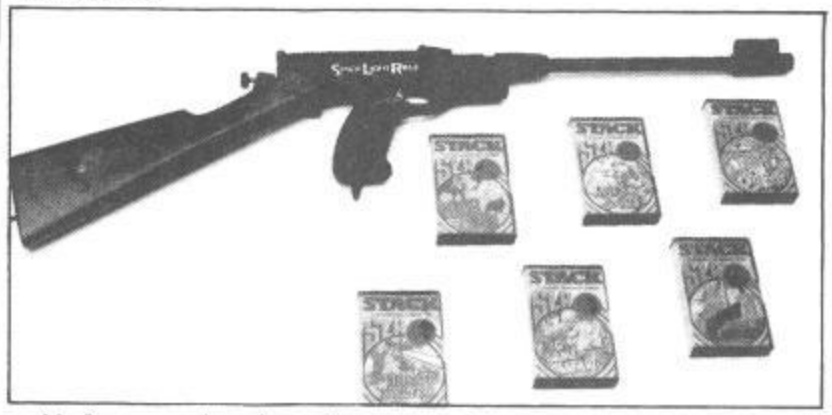
A feature of the recent show at the Wembley Conference Centre was the crowd of people playing games with the Stack Light rifle. This plugs into the machine, and can be used like the rifles in the amusement arcades. In other words you can take careful aim through telescopic sights and fire at a moving figure, or alien space ship on the screen.

The games now rushing off the presses for a variety of computers vary greatly in their characteristics. Much imagination has been used.

You can try to shoot a gunman before he blows up the mine in the wild west. (*High Noon*, one of three free games from Stack, which accompany the rifle. The others are *Glorious 12th*, and *Gallery*.). You can try to shoot escaping prisoners. (*Escape from Alcatraz*, by Stack).

You can defend the space ships with your rifle. (*Cosmic Command* from Anirog) or you can fight off Red Indians (*Indian Attack* from Anirog).

The use of the rifle is straight forward, the trigger is pleasantly spring loaded, and you have a foresight and backsight to help you, in addition to the telescope previously mentioned.



Unfortunately, the telescopic sight is not equipped with crosswires, so is of limited value. Maybe you would like to mark wires on a transparent plastic, and glue it in place.

The rifle works on white colours, so you will need to turn up the brightness on your television or monitor. Other restrictions are that your screen must not be in sunlight, and you may need to pull the curtains or switch off the lights. All of which adds to the sense of drama!

SPECTRUM CONVERTER FOR QL

Joe the Lion Software are planning to produce a program for the Sinclair QL to enable the machine to run Spectrum software.

The company claim that the program will be finished by the end of April, giving the new Sinclair a vast games software base for the home user.

"All the old favourites will go straight in", promised JTL spokesman Lawrence Holt. The complete package should retail for around £25.00, and will include the necessary cassette interface for loading programs.

ROYAL MICROS

Commodore UK have been given a mark of distinction – the Royal Warrant. For the next ten years at least their machines will bear the inscription "By appointment to Her Majesty The Queen."

This royal seal of approval does not mean that Buckingham Palace is full of mega-zapping princes, or that your Commodore 64 has become too good for mere commoners. The warrant has been granted in recognition of Commodore's commercial success in recent years.

NEW DRAGON ADVENTURE

An ambitious program has been released by Dungeon Software for the Dragon 32. *Klartz and the Dark Forces* is billed as a multi-adventure, with separate but related mini-adventures taking place at different locations.

Using a time capsule the player moves through different eras on different planets in search of answers to tricky problems. The program is also being released for the Commodore 64 and both versions cost £9.95.

AQUARIUS USERS' CLUB

An independent users' club for Aquarius owners has been founded. It's to publish a regular magazine offering help for users of the cheapest colour computer. More than 1500 people had joined by the end of February.

An earlier users' club run by the distributors of the Aquarius has merged with the new club, after getting overwhelmed by applications to join. For further information write to: Aquarius User, 66 Wymering Road, London W9.

Whispering Horace

GIRLS' GAMES

CCS have launched a series of 'games for girls' and they really are jolly super. *Diamond Quest*, an adventure game, sounds terribly exciting and not at all like those horrid games boys are always playing. CCS say: 'We think it will particularly appeal to girls because the graphics are bright and colourful and monsters do not appear!'

And what about *Jungle Adventure?* Why should this appeal to girls? Because 'they will love to take the part of Bobo, a young African girl, who makes her way from school to her home in the jungle.' I'm not so sure.

RIP-OFF BOOM

I am simply dying to have a chat sometime with the gentleman behind Boom Software who calls himself Simon Alexander. He is becoming well-known for his highly innovative business practices, designed to maximize profits.

These include requesting payment in advance for software orders which he then fails to deliver, defaulting on bills, ripping off other companies' games, supplying false references, and generally making lots of money at other people's expense.

His latest trick has been to vanish, so I can't ask him all those questions I'd like to. Unless of course someone whispers to me on 01-636 5911 and reveals his whereabouts ...

TELLING THE TRUTH

Virgin have sent me a wonderful press release. It claims that last year the company established 'a leading role' in the computer games market. It 'brought showbiz razzmatazz and stars to a rapidly growing, but dowdy industry, making it sparkle.' Indeed.

You'll be delighted to know that Virgin have proclaimed 1984 as the year of the Board Games. And they've chosen the perfect name for their first board game: *Hype.*

CRASH GOES OBJECTIVITY

Flicking through a new down-market magazine whose name escapes me – *Crash, I,* think it's called; or is it *Trash?* – I am fascinated to read a lengthy article praising the work of a programmer who's done a couple of games for Hewson Consultants.

I am even more fascinated to read the name of the author whom *Trash* commissioned for this editorial feature: none other than Andrew Hewson himself. Thank goodness he wouldn't let the fact he's actually selling these games colour his judgement.

IMAGINE EATING JUNK

Poor programmers at Imagine. Following my disparaging remarks last month about the appearance of their pictures in Imagine ads, the quirky quartet have taken to eating junk-food. Just look at this picture. It's disgusting.

● Imagine's Eugene Evans, Mike Glover, Ian Weatherburn, John Gibson.

HYPERBLAST 32K by John Brierley

Simply the best arcade-action game ever written in 32K! Defend your Atari against 10 waves of the most awesome creatures ever to inhabit your TV screen!

CAVERUNNER 32K by Martin Cawley

It's a leap and a bound through dangerous waterfalls, across exploding volcanoes, braving sticks and stones after the prizes of a lifetime!

AIRSTRIKE 2 16K by Steve Riding

The new version with incredible graphics and joystick bomb control! English Software's best scrolling game ever!

AIRSTRIKE 1 16K AVAILABLE AT ONLY £6.95!!

JET BOOT JACK 32K by Jon Williams

Our space-age jogger takes you on a Ten Screen chase through the vinyl vaults of the PRESSING PLANT! Bugs and gremlins make it the experience of the age!

NEPTUNE'S DAUGHTERS by Mark Taylor and Ralph Frumin

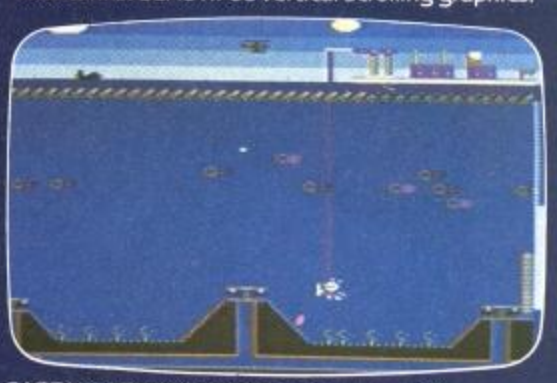
Our 1st multi-screen game for the COMMODORE 64 ONLY – rescue the beautiful daughters from the clutches of the evil serpent!

FIREFLEET 32K by Manuel D. Caballero

Pilot your space cruiser through the corridors of the unknown – avoiding cannon, forcefields and nasty little tanks! BEAUTIFUL vertical scrolling graphics!

BATTY BUILDERS 16K by Manuel D. Caballero

One of the best non-violent game programs ever written! Can you rebuild the walls before the falling blocks and TNT stop you?



CAPTAIN STICKY'S GOLD 16K by Steve Riding

Steve's latest game sends you to the bottom of the ocean in search of lost gold, with only your harpoon to help you!

ATARI COMPUTER OWNERS... TAKE THE ULTIMATE SCREEN TEST

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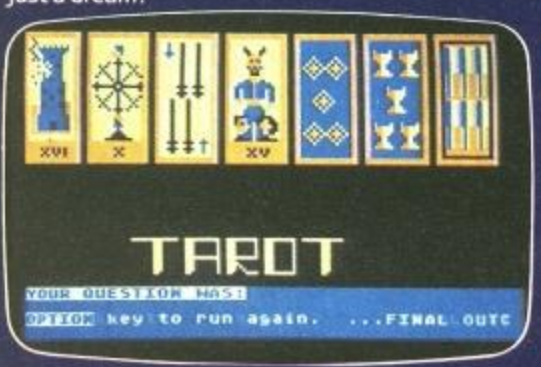

TAROT CARD 16K by Tony Austin. PRICE £12.95

Supplied complete with detailed book, TAROT CARD looks into the secrets of the classic fortune telling pack of cards. Full graphic display.

STEEPLE JACK 16K by Peter Hawkins

Climbing higher and higher up moving ladders, STEEPLE JACK encounters flying ghosts and falling elephants in his quest to reach the top! Is it real or just a dream?

DIAMONDS 16K by Simon Hunt

Join the hunt for the Great White Diamond through 16 levels to win a real diamond – full details of the Diamonds Competition with every copy!

ENGLISH SOFTWARE is available from selected branches of:
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and all good software dealers.

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NEW FOR THE COMMODORE 64

SUPERFONT 4.0 Cassette Our new character generator lets you re-define and shape your own character sets. Full editing facilities and documentation. £6.95

SPRITE MAKER 64 Cassette Design and save beautiful multicoloured sprites, and use them in your own programs! Full editing facilities and documentation. £6.95

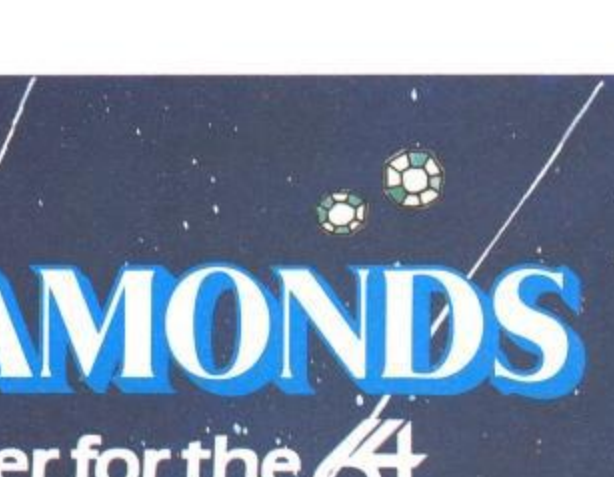
PROGRAMMERS: CAN YOU PASS OUR SCREEN TEST?

We're always on the lookout for new programmers. If you can work to the English Software standard of quality, we'll reward you by marketing your programs across Europe and the USA! Contact us today.

All English Software programs are sold according to the English Software Terms of Trading, copies of which are available on request.

DICKY'S DIAMONDS

Another cliff-hanger for the 64



ONE OF OVER 60 GAMES
FOR 10 COMPUTERS

ROMIK

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HUNCHBACK ZOOMS TO NUMBER ONE

Ocean's *Hunchback* hits the top of the charts this month, with the company claiming sales of over 100,000 cassettes. Considering the game only came out just before Christmas that is certainly a performance that will take some beating.

While Ocean put their back into it, Bug-Byte celebrate the continued success of *Twin Kingdom Valley*. One of the best graphics adventures currently on the market, *TKV* will have you battling it out with gorillas and searching for the meaning of life.

Another massive hit is Imagine's new all-action war game *Stonkers*. It's leapt up to number four, proving that the nation's gamesters are interested in strategy as well as arcade action.

Blagger – East End slang for Burglar – certainly looks set to steal the show for Alligata. Released in early January, the program is one of our hot Top Ten about to burst into the charts. Alligata have already decided to launch *Son of Blagger* as a follow-up.

Spurred on by the success of *Skull* for the Spectrum, Games Machine are putting out a Commodore 64 version. *Skull* changes hands for £6.95.

The post-Christmas slump has hit sales of *Valhalla*, but Legend are still celebrating its success – so they should be, it grossed £1,000,000 before Christmas and the Commodore 64 version should boost sales considerably.

ENTER THE BUG SQUAD

Softek now have three new games in the shops, two for the Commodore 64 and one, claimed to be 'arcade perfect', for the Spectrum.

Bug Squad, for the 64, has you driving a Puffing Spray Gun as you try to exterminate bugs, mutant lawnmowers and manic magnets.

Quak Atak, also on the 64, takes place in a medieval castle where you must take on deadly flying ducks. The game is described as 'zany', which is certainly what it sounds.

Starblitz is a new shoot 'em-up on the Spectrum which, say Softek, 'every Vid-kid is talking about'. It costs £6.95 and the two CBM64 games are priced at £7.95.

Reviews coming soon.

PARKER STEP IN

Video game giants Parker are moving into the home computer market. Just released are *Frogger* and *Q-Bert* for the Atari computers – they're both great versions, but at around £30 each that's what they ought to be.

Owners of other micros will have to wait until the summer to see what Parker are offering. In August they plan to launch *Star Wars* for the Commodore 64 and the Spectrum. Other new games, including *Super Cobra* and *Popeye*, are expected to follow at the rate of one a month. Prices will be about the same as Atari software – ie. expensive.

PCG SOFT HITS

THIS MONTH	LAST MONTH	•GAME TITLE	•PUBLISHER	SPECTRUM	VIC 20	CBM 64	BBC	ATARI	DRAGON	ORIC	OTHER
1	(24)	***HUNCHBACK***	OCEAN	•		•				•	
2	(2)	***MANIC MINER***	BUGBYTE/SOFTWARE	•		•					
3	(1)	***ATIC ATTACK***	ULTIMATE	•							
4	(–)	***STONKERS***	IMAGINE	•							
5	(–)	***SPACE SHUTTLE***	MICRODEAL	•		•	•		•	•	
6	(9)	***DEATHCHASE***	MICROMEGA	•							
7	(6)	***CHEQUERED FLAG***	PSION	•							
8	(16)	***FLIGHT***	PSION	•							
9	(3)	***3D ANT ATTACK***	QUICKSILVA	•							
10	(11)	***MY WIMPY***	OCEAN	•							
11	(4)	***ALCHEMIST***	IMAGINE	•							
12	(48)	***FIGHTER PILOT***	DIGITAL	•							
13	(5)	***LUNAR JETMAN***	ULTIMATE	•							
14	(–)	***HORACE GOES SKING***	PSION/MELBOURNE	•		•					
15	(28)	***ARCADIA***	IMAGINE	•	•	•					
16	(47)	***REVENGE OF MUTANT C's***	LLAMASOFT			•					
17	(–)	***DRAGRUNNER***	CABLESOFT						•		
18	(13)	***JET PAC***	ULTIMATE	•	•						
19	(46)	***BIRDS & THE BEES***	BUG BYTE	•							
20	(–)	***WIZARD & PRINCESS***	MELBOURNE		•						
21	(10)	***PYRAMID***	FANTASY	•							
22	(14)	***POOL***	CDS	•							
23	(40)	***KICK OFF!***	BUBBLEBUS	•		•					
24	(8)	***KONG***	OCEAN	•							
25	(7)	***VALHALLA***	LEGEND	•							
26	(29)	***HARRIER ATTACK***	MARTECH/DURELL	•						•	
27	(–)	***HUNGRY HORACE***	PSION/MELBOURNE	•		•			•		
28	(–)	***TWIN KINGDOM VALLEY***	BUG BYTE			•	•				•
29	(20)	***SNOOKER***	VISIONS	•	•	•	•				•
30	(49)	***HOVVER BOVVER***	LLAMASOFT			•					
31	(50)	***WHEELIE***	MICROSPHERE	•							
32	(45)	***GRIDRUNNER***	LLAMASOFT (Sa, Qs)	•	•	•		•	•		
33	(18)	***HOBBIT***	MELBOURNE HOUSE	•		•	•			•	
34	(33)	***LAZERZONE***	LLAMASOT		•	•					
35	(–)	***INTERNATIONAL FOOTBALL***	COMMODORE			•					
36	(25)	***OMEGA RUN***	COMPUTER RENTALS	•							
37	(38)	***CHUCKIE EGG***	A&F	•			•				
38	(–)	***FORBIDDEN FOREST***	COSMI			•					
39	(–)	***SKULL***	GAMES MACHINE	•							
40	(21)	***FALCON PATROL***	VIRGIN			•					
41	(34)	***CRAZY KONG***	INTERCEPTOR		•	•					
42	(15)	***PENETRATOR***	MELBOURNE HOUSE	•							
43	(–)	***SUPER PIPELINE***	TASKSET			•					
44	(–)	***GALAXY 64***	ANIROG			•					
45	(–)	***CAVE FIGHTER***	CABLESOFT						•		
46	(–)	***GRANDMASTER CHESS***	A/GENIC			•					
47	(17)	***HORACE & THE SPIDERS***	PSION/MELBOURNE	•		•					
48	(–)	***COMPUTER WAR***	THORN/EMI		•			•			•
49	(–)	***O RILEYS MINE***	DATASOFT			•			•		
50	(–)	***RING OF DARKNESS***	WINTERSOFT							•	

RISING FAST RISING FAST RISING FAST RISING FAST RISING F

1	***DANCING FEAT***	ARTIC			•					
2	***QUASAR***	VOYAGER			•					
3	***1984***	INCENTIVE	•							
4	***COLOSSAL ADVENTURE***	LEVEL 9			•					
5	***PILOT***	ABBEX			•					
6	***BLAGGER***	ALLIGATA			•					
7	***1994***	VISIONS	•							
8	***ZALAGA***	AARDVARK				•				
9	***ROBIN RESCUE***	SOLAR			•					
10	***MAZIACS***	DKTRONICS	•							

Compiled by reference to sales in more than 100 shops plus other sources.

LORDS OF TIME

Joins our range of acclaimed pure-text puzzle adventures, at £9.90, for:

BBC 32K ***COMMODORE 64*** ***SPECTRUM*** 48K ***LYNX*** 48K ***NASCOM*** 32K ***ORIC*** 48K ***ATARI*** 32K

ADVENTURE REVIEWS

"Adventures which have a fast response time, are spectacular in the amount of detail and number of locations, and are available to cassette owners . . Simply smashing!"
– Soft, Sept 83

"**Colossal Adventure** is included in Practical Computing's top ten games choice for 1983: "Poetic, moving and tough as hell."
– PC, Dec 83

"**Colossal Adventure** . . For once here's a program that lives up to its name . . a masterful feat. Thoroughly recommended"
– Computer Choice, Dec 83

"**Colossal Adventure** is one of the best in its class. I would recommend it to any adventurer."
– Acorn User, Feb 84

"**Adventure Quest** . . This has always been one of the best adventures for me as it seems to contain the lot. In all it took me about eight months to solve."
– PCW, 18th Jan 84

"To sum up, **Adventure Quest** is a wonderful program, fast, exciting and challenging. If you like adventures then this one is for you" *– NILUG issue 1.3*

"Colossal Adventure is simply superb . . For those who want to move onto another adventure of similar high quality, **Dungeon Adventure** is recommended. With more than 200 locations, 700 messages and 100 objects it will tease and delight!"
– Educational Computing, Nov 83

ADVENTURE REVIEWS

"Colossal Adventure . . undoubtedly the best Adventure game around. Level 9 Computing have worked wonders to cram all this into 32K . . Finally **Dungeon Adventure**, last but by no means least. This is the best of the lot – a truly massive adventure – you'll have to play it yourselves to belive it."
– CBM 64 Users Club Newsletter

"The puzzles are logical and the program is enthralling. **Snowball** is well worth the money which, for a computer program, is a high recommendation."
– Micro Adventurer, Dec 83

"**Snowball** . . As in all Level 9's adventures, the real pleasure comes not from scoring points but in exploring the world in which the game is set and learning about its denziens . . this program goes to prove that the mental pictures conjured up by a good textual adventure can be far more vivid than the graphics available on home computers."
– Which Micro?, Feb 84

"**Lords of Time.** This program, writen by newcomer Sue Gazzard, joins my favourite series and is an extremely good addition to Level 9's consistently good catalogue . . As we have come to expect from Level 9, the program is executed with wonderful style – none of those boring "You can't do that" messages! Highly recommended."
– PCW, 1st Feb 84

SEE COMPETITION OPPOSITE

MIDDLE EARTH ADVENTURES

1: COLOSSAL ADVENTURE
A complete, full size version of the classic mainframe game "Adventure" with 70 bonus locations added.

2: ADVENTURE QUEST
Centuries have passed since the time of Colossal Adventure and evil armies have invaded The Land. The way is long and dangerous; but with cunning you can overcome all obstacles on the way to the Black Tower, source of their demonic power, and destroy it.

3: DUNGEON ADVENTURE
The trilogy is completed by this superb adventure, set in the Dungeons beneath the shattered Black Tower. A sense of humour is essential!

THE FIRST SILICON DREAM ADVENTURE

1: SNOWBALL
The first of Pete Austin's second trilogy. The giant colony starship, Snowball 9, has been sabotaged and is heading for the sun in this massive game with 7000 locations.

THE LORDS OF TIME SAGA

7: LORDS OF TIME
Our congratulations to Sue Gazzard for her super design for this new time travel adventure through the ages of world history. Chill to the Ice-age, go romin' with Caesar's legions, shed light on the Dark Ages, etc.

Price: £9.90 each (inclusive)

Level 9 adventures are available from good computer shops, or mail-order from us at no extra charge. Please send order, or SAE for catalogue, to:

LEVEL 9 COMPUTING

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Please describe your computer

101 Level 9 prizes for Spectrum, Commodore 64, BBC, Electron, Dragon, Oric, Lynx, Atari and Nascom

£1,000 ADVENTURE CONTEST

On the latest stage of your adventure you have discovered a magazine rich with wisdom and entertainment. It includes details of a competition in which you could win one of 101 amazing games simply by solving a simple puzzle.

What should you do next?

READ DETAILS

OK. The 101 prizes are huge adventure games from Level 9 Computing, the adventure specialists. Winners can choose any of the Level 9 games listed on this page. They're each worth £9.90 and are available for the Spectrum 48K, BBC Model B, Electron, Commodore 64, Dragon 32, Oric 48K, Lynx, Atari 400/800/600XL, and Nascom 32.

Level 9 adventures offer weeks, or more likely months, of puzzle and intrigue. Each game creates its own huge mystical world.

The games don't offer pretty pictures – the program space is packed instead with more than 200 locations, each described in rich detail. For more information refer to the Level 9 advertisement in this issue.

To enter the competition, you have to fill in the 12 answers on the entry form below. Each answer takes the form of a two-word command such as might be used in an adventure. Here are some examples:

DRINK WINE	RUB LAMP	ATTACK SERPENT

● COMPETITION RULES

1. Entries should be addressed to Adventure competition, Personal Computer Games, 62 Oxford Street, London W1A 2HG. 2. They must arrive by 1st post April 30, 1984. 3. Employees of VNU and Level 9 and their families may not enter. 4. The editor's decision is final.

COMPETITION PRIZES

You can choose any one of the following:

● COLOSSAL ADVENTURE
The classic game originally on a mainframe computer. Collect treasure from the caves then rescue the elves from the evil goblins.

● ADVENTURE QUEST
A follow up to Colossal Adventure 300 years later. Collect four stones and then confront the demon lord.

● DUNGEON ADVENTURE
Third part of the trilogy set in the dungeons beneath the demon lord's dark tower. 100 puzzles to solve.

● SNOWBALL
Try to save a vast starship which has been hijacked and is hurtling toward the sun.

● LORDS OF TIME
Explore nine different time zones ranging from the ice age to the far distant future. Full review on page 74.

The letters which make up each answer are contained in the 12 clues printed below. You simply have to unjumble the letters. After each clue two numbers are printed to indicate how many letters there are in each of the two words in the answer.

One final tip is that the two words (4, 8) formed by reading downwards the first letter of each answer is something you might find in an adventure.

What should you do next?

ENTER COMPETITION

● COMPETITION CLUES

1. TED GROWS (3,5)
2. PHONE SECT (4,5)
3. FELT LIVER (4,5)
4. DAD'S GIN (3,4)
5. KNIT GEAR (4,4)
6. PRE-ADAM (4,3)
7. TAKE ACE (3,4)
8. LAKE BURST (3,6)
9. ROMEO CRASH (6,4)
10. PINE ROUTE (5,4)
11. NEW RUST (3,4)
12. SEE, O HUNTER (5,5)

● COMPETITION ENTRY FORM

Name .....
Address.....
.....
.....**Post code** .....

ANSWERS

1. ___ ___ ___ ___ ___
2. ___ ___ ___ ___ ___ ___
3. ___ ___ ___ ___ ___ ___
4. ___ ___ ___ ___ ___
5. ___ ___ ___ ___ ___
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10. ___ ___ ___ ___ ___ ___ ___ ___
11. ___ ___ ___ ___ ___
12. ___ ___ ___ ___ ___ ___ ___ ___ ___

The adventure I would like is (circle one) ***Colossal Adventure/Snowball/Lords of Time/Adventure Quest/Dungeon Adventure***
My machine is (circle one) Spectrum/BBC/Electron/Dragon/Oric/Commodore 64/Atari/Lynx/Nascom.

The next part is nothing to do with the competition, but your answers will help us in planning future issues.

Listed here are the contents of this magazine. Please place a mark between 0 and 10 according to how much you liked each section. (10 means it couldn't have been better, 0 means you found it useless.)

Noticeboard ____
Buzz ____
Byte-back ____
Joystick feature ____
Human to Human ____
Skramble article ____
Screen Test ____
Good Buy ____
Program Control Guardians ____
Book Test ____
Lazy Programming ____
Program Library ____
Puzzles ____

Byte-Back

ALL THE SNAPPIEST LETTERS...

Write to: Byte-back, *Personal Computer Games,* Evelyn House, 62 Oxford Street, London W1A 2HG

LUNAR JETMAN TIP

My highest score (131,080) has been achieved by the following method. Firstly drive the buggy to the nearest teleporter, and teleport to the second one. If the alien base is within sight then return for the bomb and drop it on the base. Otherwise return to the buggy.

The cannon must now be placed on top of the buggy and Jetman can remain safely in the buggy scoring points.

At this stage Jetman should drive to the teleporter *furthest* away from the alien base and continue shooting aliens until the missiles are launched. When the missile has been launched Jetman must teleport to the teleporter nearest the alien base to wait for the missile to appear overhead.

If any aliens threaten Jetman at this stage you can simply teleport him away for a second and then return when the danger has passed. Continue doing this whenever Jetman is in danger until the missile appears overhead at which stage he should get just behind the missile and destroy it.

When the missile has been destroyed Jetman should return to his buggy via the teleporter. He should again drive his buggy to the teleporter furthest away from the alien base and repeat the process.

This method is successful because Jetman spends very little time at risk. He can remain in his buggy scoring points until the missiles are launched and then he can use the teleporters to escape danger. The method you described however puts Jetman constantly at risk and gives little opportunity to score points.

P Kelly, Preston, Lancs

Silicon soulmate

I am 13 years old and the proud owner of an Aquarius Computer. I say proud because like all computers if you understand your computer's limitations, both the user and the micro can enjoy a meaningful relationship. In fact, my computer and myself get on so well I call it Spike.

Being one of five children aged 11 – I find everyone likes to use the Aquarius. It's a pity about the lack of software or readers' programs.

Jason Salter
Telford, Shropshire

MANIC MINER

Here's a method which gives multiple lives and allows you to jump to any of the 20 screens.

When loading instead of typing LOAD"" type MERGE"". This means the Spectrum will stop loading after a short while with the report code OK. Stop the tape immediately and LIST. Then enter this program line 25 POKE35136,0 and RUN. The screen will go black, start the tape to load the remainder of the program.

After loading press ENTER to start a game and then this number sequence 6031769 (with tune turned off). A boot should now be visible at the bottom left of the screen. You will now be able to play on any screen by entering certain key combinations using numbers 1 to 6. Six being present in all combinations. All keys should be held down simultaneously.

Here are three combinations: 63 – Eugene's Lair, 6124 – Return of the Alien Kong Beast, 6234 – The Bank.

You can now play on any screen using as many lives as you require to finish it.

J Haynes, Horsham, Sussex

This works on the Bug-Byte version. But Software Projects who are now producing Manic Miner *have put the clappers on these wonderful frustration-saving tricks.*

Games for Vic 20

I've just bought a Vic 20, it is unexpanded and has no joystick, there is a huge collection of software (games) and I don't know which ones are best, can you recommend any!

Stephen O'Neill
Eastkilbride, Lanarkshire

Look no further than our Good Buy section.

Unfair to Ultima Zone

I'm writing in to bemoan your review of Tansoft's *Ultima Zone.* Not surprisingly, I'm the author.

The reviewer calls it 'basically a gamespack'. *Ultima Zone* has three different 'missions', all in one program, unlike a gamespack, which would consist of three separate programs.

The whole philosophy behind *Ultima Zone* is the 'elastic nappy' principle – it expands as you do. There are eight different levels of difficulty and the last two really stretch the Oric to bursting point. The first two, deliberately easy, ensure the widest 'captive range' for the potential audience – at least, that's the idea.

Imagine, then, what I felt when your reviewer lashes his unkindest cut ... 'a possible buy for small children with no arcade experience ... should be avoided by anyone else'. This shows that the reviewer didn't play the game long enough.

It's all in machine code and everything moves pixel by pixel, supersmooth. The Walkons are animated. Yet it still got a '2' for overall value. Above, it, a *Space Invaders* rip-off that doesn't even allow you to move and fire at the same time got the same 'overall' value. WHY?

Andy Green, Flitwick, Beds

Maybe the cut about small children had something to do with the elastic nappy principle.

Adventure slot?

I would like to see a monthly feature on adventure games with possibly a chart of the best-selling games in this category. Your features on adventure games in this months copy (February) was very good.

G Wesley
Shaling, Southampton

Coming up very soon, Mr Wesley.

EEC guarantee

We note that in the February issue the Mechanical Joystick and EEC Ltd broke, before you were able to test it. I would like to point out that this was a prototype version only and the production versions are 'Unbreakable' under normal usage. If the customer isn't fully satisfied we offer a full money-back guarantee.

B K Watson, EEC, Chalfont St Peter, Bucks

Electron Jet Pac wanted

I am the world's most critical person; which is why I am astonished that I am writing to you in praise of your magazine. I must have bought a copy of every computer and video magazine available. However, after reading February's PCG, I was greatly pleased at the new format, exactly how I would have done it!

Finally, my machine is an Electron but my favourite game is *Jet-Pac*, is there any hope for me?

D Phillips, Urmston, Manchester

Who can say? Ultimate refuse to reveal their future plans.

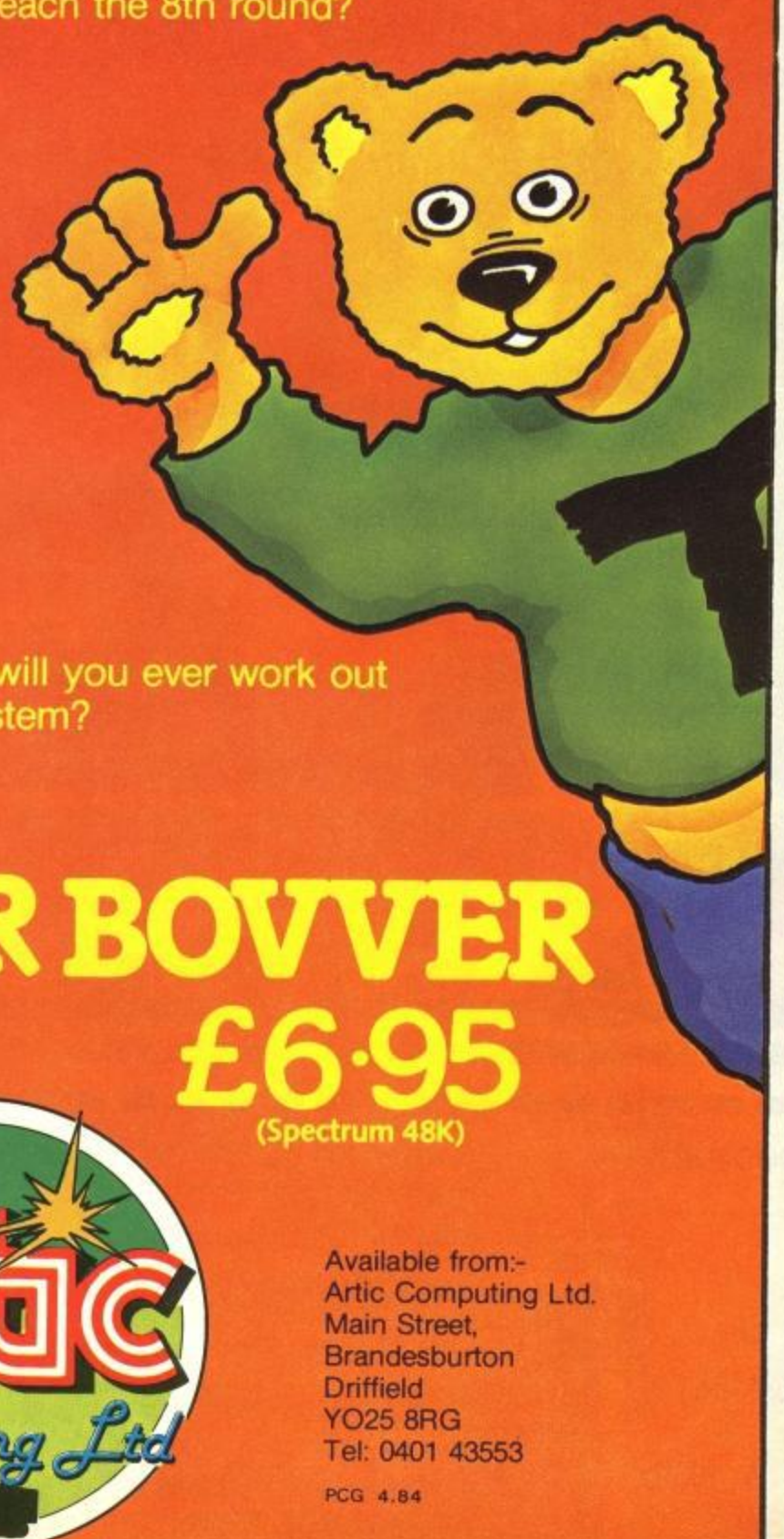
It's no picnic!

But if you go down to the woods today, will you help Ted get his batteries?

Or will you get bovvered?

Or get the cocktail?

Will you ever reach the 8th round?



Come to that, will you ever work out the scoring system?

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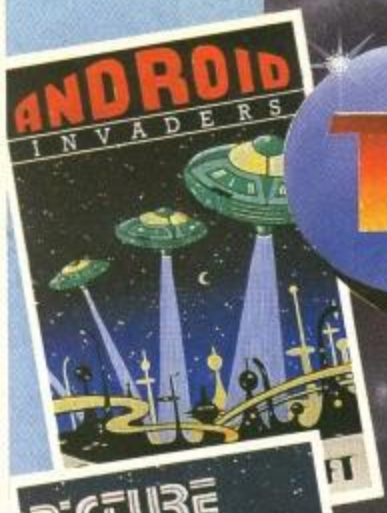

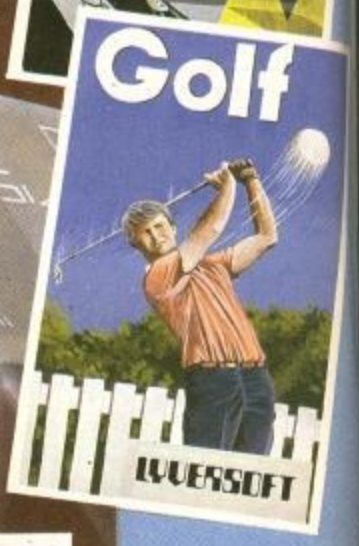

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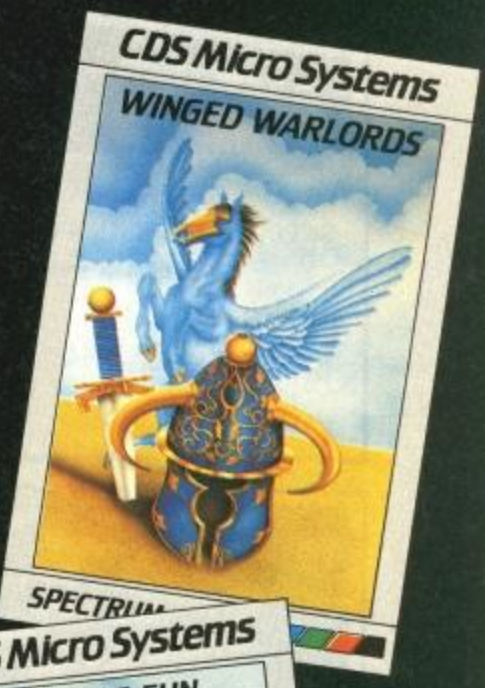

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THE JOYSTI

STARFIGHTER £13.95
SUPPLIER: CONSUMER ELECTRONICS

STRENGTH	7
RESPONSIVENESS	8
EASE OF USE	7
VALUE FOR MONEY	7

It's when you've just been playing a version of *Defender* and you have to ask your mum to come and untie the knots in your scrambled fingers that you finally realize it might be a good idea to get yourself a joystick. But which one? How can you choose from the thousands of ads in the computer magazines, each claiming that their particular peripheral is the best?

Money, of course, will be an important factor, especially when you notice that the more luxurious models can cost two or three times as much as something more modest. But after you've smashed the piggy-bank and decided what you can afford there are still some tricky decisions to be made.

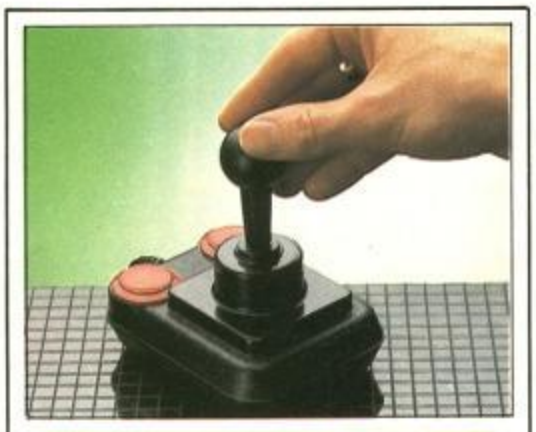
You will have to consider the kind of games you like to play and also the kind of games-player you are. Are you one of those hunched desperadoes who grips his stick with both hands and wildly wrenches it all over the place? Or are you the more refined type, calmly zooming out of trouble with the gentlest of pressure on the controls?

Depending on which of these two descriptions fits you best you will want something either big and strong or smaller and more sensitive.

It might even be necessary for you to consider such factors as the behaviour of pets and parents. There isn't much point buying a joystick with a spongy grip if Fido likes nothing better than chewing on something rubbery and bone-like in his playful moments. And what's the use of a small sensitive stick if

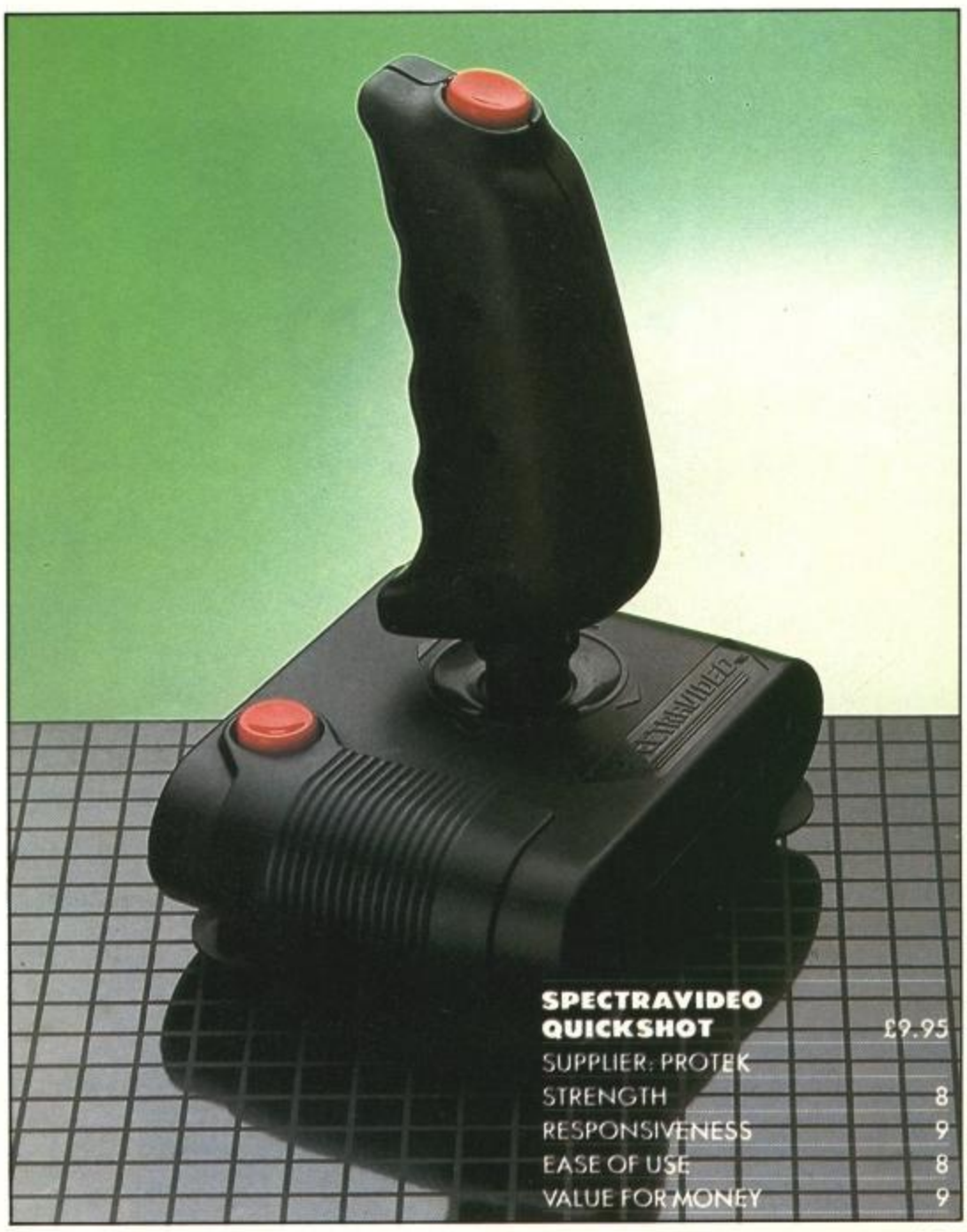
TAC 2 £18.95
SUPPLIER: CONSUMER ELECTRONICS

STRENGTH	9
RESPONSIVENESS	8
EASE OF USE	8
VALUE FOR MONEY	7



COMPETITION PRO £13.50
SUPPLIER: KEMPSTON

STRENGTH	9
RESPONSIVENESS	7
EASE OF USE	7
VALUE FOR MONEY	7



SPECTRAVIDEO QUICKSHOT £9.95
SUPPLIER: PROTEK

STRENGTH	8
RESPONSIVENESS	9
EASE OF USE	8
VALUE FOR MONEY	9

Photography by Peter Smith

y's joysticks through their paces

ICK OPTION

your ham-fisted Dad is in the habit of having a good mega-zap when you're tucked up in bed?

Before you buy you must do some serious thinking about your family and yourself, and then – most important of all – read the PCG guide on how to get real joy from your stick.

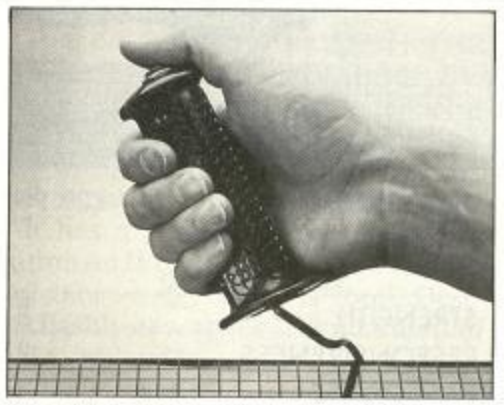
Suncom's **Joy Sensor** is one of the more unusual sticks around. In fact, it isn't a stick at all. It consists of a circular, flat plastic pad on which the player presses to produce movement on the screen. Above the circular pad is a smaller, rectangular one which is the firing pad. This has rapid or single fire options.

The Joy Sensor's controls are very sensitive and the rapid-firing option is welcome, but somehow it just doesn't seem right. Pressing hard or quickly on the direction pad is likely to give you nasty friction burns on your thumb. And the shape of the contraption – like a pocket calculator – makes it rather uncomfortable to hold.

The manufacturers make a selling point of the fact that there is 'no stick to move, no resistance to movement', but don't games-players want at least something to grasp and at least some resistance?

Suncom's other products – **Starfighter, Slik Stik** and **Tac-2** – are more traditional, all being versions of the stick-in-base formula.

The Slik Stik's thin steel handle is set in a light but sturdy plastic base. The handle is topped by a bright orange knob to stop your hand slipping. The



LE STICK	£19.95
SUPPLIER: SILICA SHOP	
STRENGTH	8
RESPONSIVENESS	7
EASE OF USE	6
VALUE FOR MONEY	7

MMAND

	£22.95
ICA SHOP	
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NESS	9
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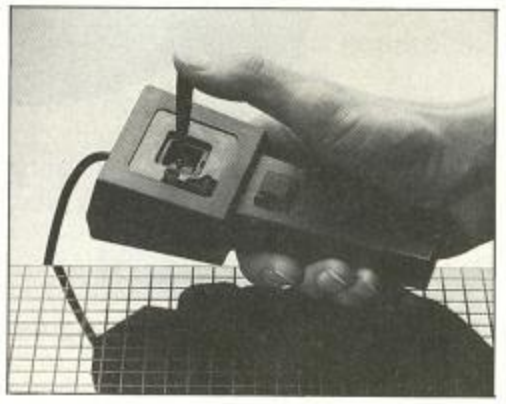
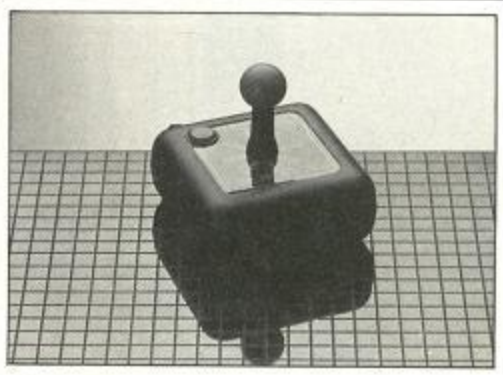
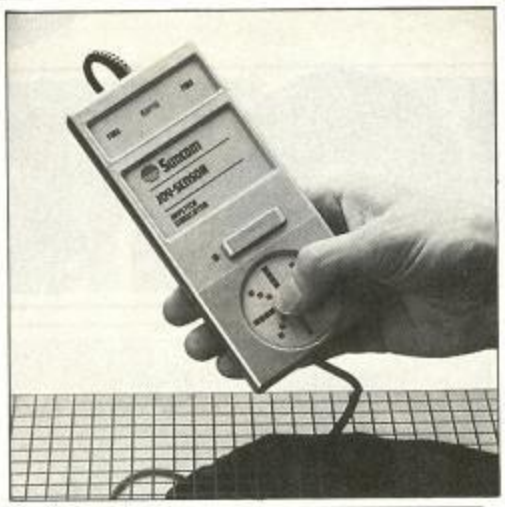
ONEY	8



DRAGON DATA	£14.99/PAIR
SUPPLIER: DRAGON DATA	
STRENGTH	5
RESPONSIVENESS	4
EASE OF USE	3
VALUE FOR MONEY	5



SLIK STIK	£9.95
SUPPLIER: CONSUMER ELECTRONICS	
STRENGTH	8
RESPONSIVENESS	8
EASE OF USE	7
VALUE FOR MONEY	8



JOY SENSOR	£29.95
SUPPLIER: CONSUMER ELECTRONICS	
STRENGTH	8
RESPONSIVENESS	7
EASE OF USE	4
VALUE FOR MONEY	5

THE BOSS	£12.95
SUPPLIER: SILICA SHOP	
STRENGTH	7
RESPONSIVENESS	6
EASE OF USE	7
VALUE FOR MONEY	7

stick is quite stiff in the base but is still very responsive. It does, though, seem a little small for an adult's hand and is probably better suited to the younger player.

The Starfighter has a similar base but the handle is smoother, thicker and minus the knob; it is also quite short. Control is of similar quality to the Slik Stik but the handle can get a bit slippery and the whole thing seems less robust; you might be afraid of breaking it if you get too excited.

Tac-2 is Suncom's luxury joystick. It's bigger and much more robust than either of the two already discussed. It has a long thin stick with a black knob set in a solid plastic base.

Suncom claim it can withstand two million depressions, and I wouldn't like to argue with that figure. Despite its strength it has a good feel and is very responsive. There's also a choice of two fire-buttons.

Wico also produce a range of four sticks, one of which is a curiosity. This is **Le Stick**, a joystick without a base works by means of mercury switches in the grip. Movement is produced by tilting it at least 20 degrees in the desired direction.

Le Stick is made of springy black rubber and has the fire button on top. It's very comfortable and a lot less tiring than the normal type of stick.

It does, though, feel very strange at first and takes some getting used to. The lack of a base and the lack of resistance could mean that some will never come to terms with it. It's quite easy to confuse directions on games such as *Defender* and seems more suited to lateral movement games such as *Galaxians.*

Wico's range of more conventional sticks starts with **The Boss**. The comable black handle has moulded fingergrips and is set in a solid base providing good resistance. The Boss gives good control but the fire-button, at the top of the handle, is a little slack and has a slow response time.

A step up from this is the **Command Control** 'built on a solid steel shaft mounted in Wico's ultra smooth arcade diaphragm module.' You get a red grip and a snazzy red and black base. Firing is interchangeable between base and grip. This is a very solid stick with a nice feel and good response.

Top of the Wico range is the **3 Way Command Control**. This is essentially the same thing as the ordinary Command Control but has three different grips 'ergonomically designed to fit your hand and mind.' Not bad, eh? The choice is between a grip with finger mouldings, a narrow smooth one and a thin smooth one.

You should be able to accommodate just about everybody with this range. As well as this choice of grips the 3 Way also has the edge over the ordinary Command Control in responsiveness and robustness.

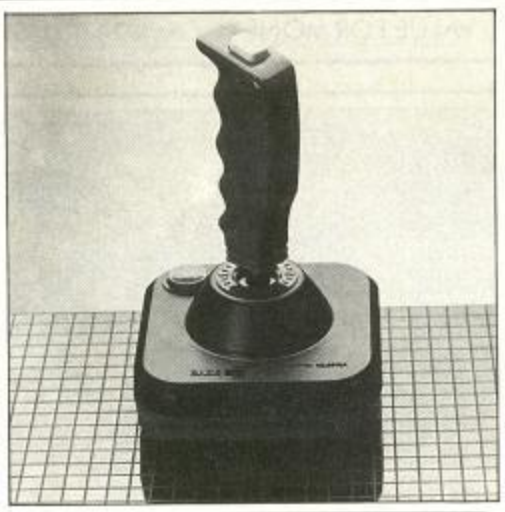
Emax Computing's **Arcade Professional** comes with a truly awesome warning: 'This panel,' you are told, 'is a professional module. It is not a toy.'

Well, if it isn't a toy it isn't going to sell very well, because the number of people I know who make a living playing arcade games is pretty small.

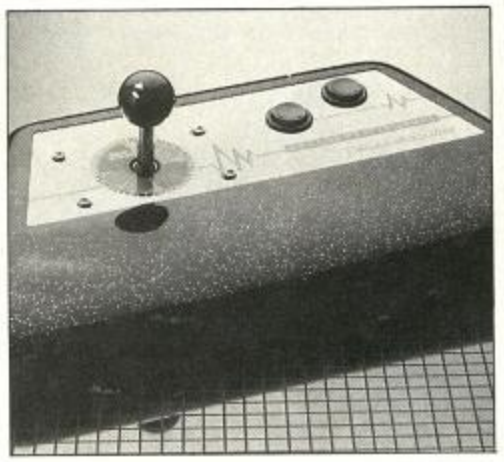
The Arcade Professional is an enormous module, as befits its price. The base measures about a foot across, dwarfing the stick itself. The 'non-slip foam base' doesn't prevent the module from roaming around the table when you get excited.

Control is very disappointing; the steel stick is too loose in the base and, consequently, response time is slow. What is worse is that the stick is in the ideal position for left-handers. I have nothing against these people, but I do believe that the right-handed are in the majority, even among the arcade professionals.

The **Spectravideo Quickshot** is, I think, a toy; but it's still a good joystick.



COMMAND CONTROL	£19.95
SUPPLIER: SILICA SHOP	
STRENGTH	8
RESPONSIVENESS	8
EASE OF USE	8
VALUE FOR MONEY	6



ARCADE PROFESSIONAL	£38.50
SUPPLIER: EMAX COMPUTING	
STRENGTH	8
RESPONSIVENESS	6
EASE OF USE	6
VALUE FOR MONEY	4

TRIGA COMMAND	£19.95
SUPPLIER: DATEL	
STRENGTH	7
RESPONSIVENESS	8
EASE OF USE	8
VALUE FOR MONEY	6

LINKING UP YOUR SPECTRUM OR ORIC

One of the problems that games players suffer with machines such as the Spectrum and Oric is that no provision is made for a joystick, the only remedy to this is to buy an interface costing anything from £10 upwards.

There are two main types of interface: dedicated and programmable. The dedicated type usually plugs into the edge connector of your micro. It suffers from the fact that only software written specifically for it can be used with it. However, the most popular interface of the dedicated type, the Kempston joystick interface for the Spectrum, can be used with a large number of games.

Sinclair have recently launched their own joystick/cartridge interface, the Interface 2 and this will probably become the favourite with both software houses and users. But as yet not a great number of games are compatible.

The latest addition to the joystick interface market are the programmable type. These allow you to make each position of the joystick equivalent to any key you choose. This means that the joystick can be used with any game. The AGF interface is one example.

ATARI JOYSTICK	£9.95
SUPPLIER: ATARI	
STRENGTH	6
RESPONSIVENESS	7
EASE OF USE	7
VALUE FOR MONEY	7

COMPUTER JOYSTICK	£7.45
SUPPLIER: FLIGHT LINK CONTROL	
STRENGTH	7
RESPONSIVENESS	8
EASE OF USE	8
VALUE FOR MONEY	9

It has a large grip with finger-mouldings set firmly in a sturdy base. There is a choice of fire-buttons on grip and base and there are also suction pads to stick it down to the table. It's very comfortable and gives good response.

If you like a really big handle, then **Triga Command 2** could suit you. The grip is curved away from the player and has tough plastic on the sides with the fire-button at the top front. The stick is fixed quite loosely in the base and does not feel very strong, but it is responsive.

Lighter and smaller, but just as sensitive, is the **Pro-Ace**. The shaft here is small and smooth and set firmly in the base; only the slightest pressure is required to get movement on the screen. Unfortunately, the fire-button at the top of the stick seems a little loose and makes a clanking noise every time you shoot.

Another one for those who like something firm and sensitive is the **Competition-Pro**. This has a very stout base in which two fire-buttons are set – there's no button on the stick itself.

The large knob and short stick mean that this is one to hold in the palm and direct with short, sharp movements.

There's not a great choice of joystick for Dragon owners. **Dragon Data** themselves produce one, but it is far from satisfactory. It's designed to be held in one hand while the stick is manipulated with the other.

Unfortunately the stick is very small and very weak; over-enthusiastic use can lead to an early retirement. But the worst thing about this stick is that it isn't self-centring. As a result you go all over the place and movement takes a long time.

A much better version of the same thing is the **Computer Joystick** which is self-centring and is therefore much more responsive. It's also rather more robust.

Useful gadgets for the Spectrum are clip-on mechancial sticks for games using cursor-key control. **EEC**'s stick is sturdy and has a nice large handle. This is quite stiff in the base and would suit players who appreciate some resistance.

Grant Design's stick is smaller and has a looser feel; less pressure is required to produce movement.

That old favourite, the **Atari joystick**, shouldn't be forgotten. Most games-players must by now be familiar with this sturdy peripheral. Its simple design has withstood many a mega-zap from the roughest of players.

It has a straight stick with the fire-button on the base. There is quite a lot of resistance and control is good. Despite the flashly new styles around the Atari is still a contender.

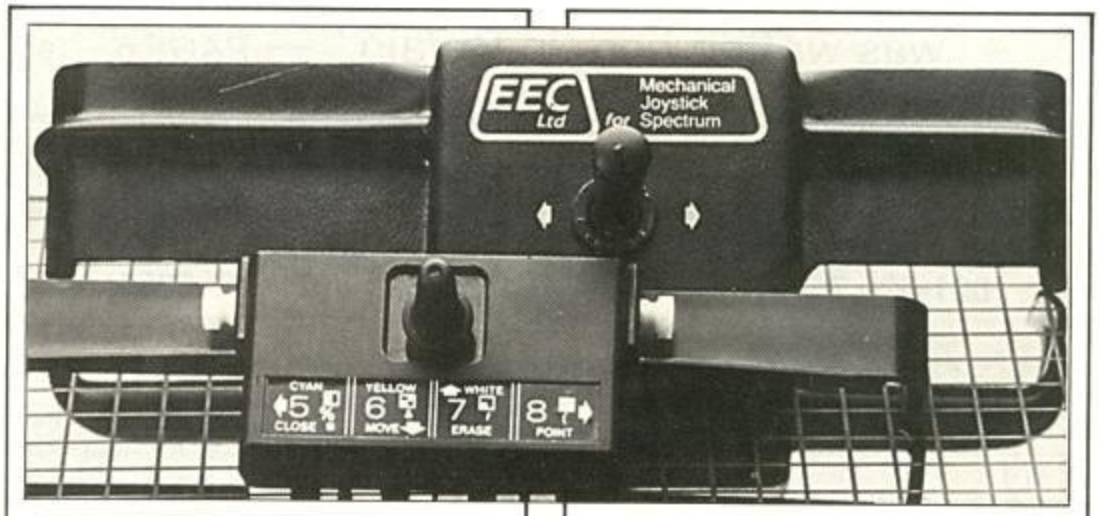
The **Trickstick** is a remarkable new idea which you will either love or hate. It is quite different from any other joystick I've encountered.

The stick is basically a slim cylinder with six buttons: two on the top face, two on the upper part and two on the lower part. You hold it in two hands and are supposed to press lightly on the buttons. These you have already adjusted by turning the sensitivity knob; different people it seems require different degrees of resistance.

The Trickstick is much more comfortable than the normal kind of joystick, but really does take some mental adjustment from the player. You have to restrain yourself from wrenching the thing all over the place as with the usual thing. Once you get the hang of it, it becomes exceptionally responsive and saves a lot of wear and tear on the thumbs. Of course, old-fashioned mega-zappers might never adjust. But the Trickstick is the shape of things to come.

- **Background: Mechanical Stick**
- **Foreground: Spectrum Stick**

TRICKSTICK	£34.50
SUPPLIER: EAST LONDON ROBOTICS	
STRENGTH	8
RESPONSIVENESS	9
EASE OF USE	6
VALUE FOR MONEY	6



MECHANICAL STICK	£9.95
SUPPLIER: EEC	
STRENGTH	7
RESPONSIVENESS	7
EASE OF USE	7
VALUE FOR MONEY	7

SPECTRUM STICK	£9.95
SUPPLIER: GRANT DESIGN	
STRENGTH	6
RESPONSIVENESS	7
EASE OF USE	7
VALUE FOR MONEY	7

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Movement of the joystick is recognised by the computer *exactly* the same as pressing the appropriate control keys, and can therefore give the most immediate response to that movement. The hardware programmed design works with *all* possible key-reading methods, both BASIC and Machine Code.

Eight directional movement, with or without the fire button being pressed, can be achieved by only programming the left, right, up, down and fire keys required by the game.

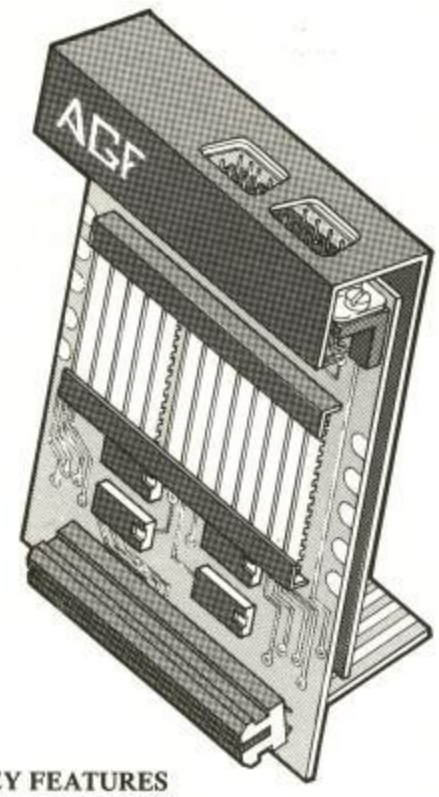
Programming is achieved by a two-digit code, which is looked up on the Programming Chart supplied, for each direction and firing button. These two numbers are then selected on a pair of leads which are clipped onto appropriately numbered strips on the interface.

Once configured this can be marked onto a Quick Reference Programming Card for storing with the game. As the programming is *not* power dependent the interface can be immediately used when next switched on.

The keyboard remains fully functional and can be used simultaneously with the joystick.

An integral rear expansion connector means there is no need to remove the interface to connect other peripherals.

NB. A recent design improvement now means that the AGF Programmable Interface works with the new Quickshot II rapid "Auto Fire" feature.



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Test-pilot Peter Connor dons flying jacket and goggles for high-adrenali

CAVE

It was one of those idyllic summer days in the heart of the English countryside. The sun shone brightly through the strong tall oaks casting a dappled light on the grass where Ginger, Pongo and I sat in deckchairs, calmly smoking our pipes and discussing the cricket season. Bliss.

Suddenly the air was torn by the shrieking of sirens. Pongo dropped his pipe and burnt a hole in his new high-altitude trousers. Ginger's handlebar moustaches sprang to attention. I quickly drained the last of my tea-with-no-milk-thankyou-and-just-one-sugar. We all knew what it meant.

'SCRAMBLE! SCRAMBLE! SCRAMBLE!' blared the tannoy as we raced to our ships. I leapt into the cockpit and ignited the rockets, my heart pounding.

I was scared, I'll admit. Too many good men had never returned from missions like this.

'Five stages,' they'd warned us in training, 'beginning with the mountains'. And there before me, rising almost vertically from the ground, was a huge mass of rock. I slammed on the retrorockets and pulled my joystick back, avoiding impalement on the peak by a hair's breadth.

My sigh of relief was cut short as a flurry of missiles sped up at me from the valley. Instinctively I released bombs and fired my lasers, destroying some and dodging the others.

Dangerously low

A glance at the instrument panel told me I was running dangerously low on fuel. The only way to get more was to dive, hug the ground and bomb the fuel dumps scattered along my course. Swooping, climbing and firing like this I made good progress, keeping my fuel up and the missiles down. I felt good, almost confident. I was just reaching down for a fruit gum when I saw something that made my whole body stiffen with fear.

Gaping in front of me were the jaws of a huge cavern, waiting to swallow me up like a hungry monster. In the belly of this beast were dozens of saucer-shaped UFOs bouncing up and down like madmen on trampolines. There was no time to think. I zoomed through the entrance and kept my finger on the trigger. Somehow I got through.

Emerging from the cavern I found a massive swarm of meteorites flaming towards me. I fired the laser. Nothing. I dropped my bombs. Nothing. These meteorites were *indestructible*. Evasive action was the only way through.

Then through the storm I saw a sheer wall rising in front of me and I threw the ship into a shuddering climb. Flashing clear of the skyscraper I found myself flying over missile silos embedded in roofs. Bombs away!

At last – the maze. Skyscrapers below. Skyscrapers above. Just a narrow passage with 90 degree turns at dizzying speed.

Mission completed. Proud, safe and tired I returned to base. Ginger and Pongo never came back.

Why them? Why not me? Because I had spent hours training on simulations of this terrible mission on my large selection of home computers. Anyone, whether he owns a ZX81 or a BBC, can do the same.

Trainee pilots with Spectrums face quite a choice, the outstanding version being *Cavern Fighter* from Bug-byte (see Screen Test). But Melbourne House's *Penetrator* is certainly a good buy for the 48K machine.

The graphics are very clear and consist mainly of lines, except for the twirling purple radar bases which signal your approach to enemy missiles.

The rugged, yellow terrain of the beginning changes to a blue cavern with very steep inclines. Then come a series of skyscraper-like blocks followed by another cavern.

Shattering

This one has the hazard of 'enemy paratroopers' bouncing up and down. They may look more like doggies' faces but the effect is shattering all the same.

Eventually you get through to the enemy's 'neutron bomb store' and must attempt the dangerous return journey.

Penetrator moves fast but the ship's controls are sensitive enough to cope with firing and manoeuvring at the same time. The sound, too, is surprisingly good in this version.

Two features which will appeal to less resolute novices are a training facility which allows you to skip from phase to phase and a landscape-customizing facility which allows you to get rid of the difficult bits.

Gas-guzzler

In contrast to *Penetrator*'s lines Mikro-Gen's *Scramble* has solid graphics. In the first stages you fly over a pink landscape trying to avoid the missiles and *Defender*-style aliens while bombing the fuel dumps. You must be accurate since your ship is a real gas-guzzler and you could find yourself dropping very quickly from fuel loss.

In the cavern you encounter the UFOs – green ovoids with, for some strange reason, black eyes. These are by no means the most fearsome obstacles to be found in *Scrambles*, and should not hold up your progress very long.

The meteors in stage three, though, are more of a problem. These big yellow blobs with long tails come thick and fast, forcing you to do some fancy flying.

The last stage is the fortress, a large purple block riddled with missile silos. Get through this and the mission is over.

Although this version has hardly any sound its graphics are good and it presents the player with a real challenge. Here again, though, there is the temptation to take the easy way out as you can enter the game at any stage.

C-Tech's *Rocket Raider* is the weakest of the three Spectrum versions on offer. The graphics are too chunky and the same landscape features are repeated too often. The movement is very jerky and your ship has an unpleasant way of squirting its bombs from the rear.

Should you want to play *Scramble* on a green background you will have to buy

alin action for the Spectrum, Dragon, Commodore, Vic 20, Atari, ZX81 and BBC

RN CARNAGE

a Dragon. Despite the predominance of the colour the two versions available are both quite satisfying.

Microdeal's *Skramble* has all the usual features in five stages. On the whole the graphics are very pleasant, although there are some strange points, such as the UFOs in the cave which look like blue and white hamburgers and are very easy to shoot. The asteroids after this look like yellow tadpoles but are very hard to avoid.

Getting fuel is easy as the bombs spurt out of the rocket's nose before falling at right angles. They also make a strange warbling noise.

Fine judgement

Whirlybird Run from Dragon Data is of a similar standard. Here, instead of a rocket, you have a chopper which makes a good chugging noise.

The graphics are again good with blue missiles surging up from yellow hills. In this version the UFOs appear before the cavern and, due to what must be a bug, are very easily destroyed; stay at the top left of the screen and blast them as they bounce off the roof.

When you do get to the cavern the game gets pretty difficult. The gaps in what seem to be stalactites are very narrow and require fine judgement to be successfully negotiated.

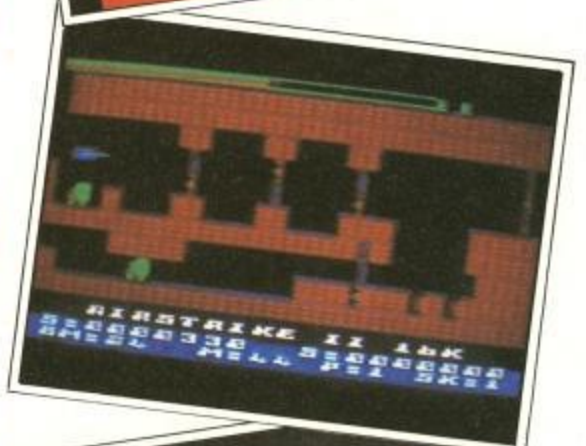
Although the firing in *Whirlybird Run* is more satisfactory because of the bombs' more sensible trajectory there is not much to choose between these two Dragon versions.

Terminal Software's program *Super Skramble!* for the Commodore 64 is a disappointment. The graphics are exceptionally smooth but they are also exceptionally slow and lacking in imagination.

Your ship may, or may not, be a helicopter – it's hard to tell. You must bomb about every fuel dump or run out of juice. All the usual *Scramble* features are there (except the UFOs in the cavern) but they are not very interesting. The program also wastes the 64's sound facilities; it lacks volume and variety.

Anirog's *Skramble*, also for the 64, is the better game, even if its graphics are a little jerky. Here you must pilot the ship through six zones, each with its own colour.

You begin in the red zone over the rocky terrain and proceed to the blue cavern, in which the UFOs are dis-



GAME: ROCKET RAID £9.95
MACHINE: BBC
JOYSTICK: OPTIONAL
SUPPLIER: ACORNSOFT

GRAPHICS	9
SOUND	9
EASE OF USE	8
LASTING INTEREST	9
OVERALL	9

GAME: AIRSTRIKE 2 £9.95
MACHINE: ATARI 400,800,XL
JOYSTICK: NECESSARY
SUPPLIER: ENGLISH SOFTWARE CO.

GRAPHICS	8
SOUND	7
EASE OF USE	7
LASTING INTEREST	8
OVERALL	8

GAME: SCRAM-20 £5.95
MACHINE: VIC 20
JOYSTICK: OPTIONAL
SUPPLIER: ARTIC

GRAPHICS	8
SOUND	6
EASE OF USE	5
LASTING INTEREST	7
OVERALL	7

Richard Evans

appointingly easy to blast. However, in the brown zone the fizzling fireballs are a problem for even the most accomplished of Commodore Commanders. Further stages follow the normal pattern, increasing in difficulty.

Thunderbolt

To find a good *Scramble* for the Vic 20 would be surprising enough, but to get one for the unexpanded machine is a thunderbolt from heaven. Artic's *Scram-20* has graphics whose quality is almost worthy of the 64; sharp, colourful and amazingly smooth.

If you get through the first stage of blue mountains you enter a green cavern with deadly red UFOs. Success at this stage leads you to purple rocks where you are attacked by the Zoids – they're only squiggly lines, but nasty nonetheless. Further stages are as usual with the prize of the enemy base at the end.

The only drawback to this game is its speed; it's so fast it could take hours to get anywhere. A stop-go technique seems best. It's heavy on the joystick, but effective.

Sumlock's *Skramble*, also for the unexpanded Vic, isn't really in the same class. Its graphics are rudimentary and very jerky – on fast forward the ship has a habit of momentarily disappearing, while the missiles often go straight through you.

The English Software Company's *Airstrike II* for Atari computers is an excellent *Scramble* game with some novel points. The game has five sectors, but you can congratulate yourself if you get through the first after less than two hours play.

Very near the opening mountain is a cavern with meteorites coming at you vertically rather than horizontally. After these is a series of gates opening and closing at random; you must wait till they are aligned and then blast your way through. Many times you will find yourself pranged by the rockets lurking deep in their silos just after the gates.

Intriguing

Airstrike II's further stages are similar to the standard ones, but all have something intriguing to offer. The graphics are excellent and beautifully smooth. And for an extra £4.95, you can get yourself some extra landscapes.

But we mustn't forget in our survey the humble, the homely ZX81. It might seem ridiculous but Mikro-Gen produce a *Scramble* for the old favourite; and, given the limitations of the machine, it's very good.

No sound, no colour, extremely limited graphics but it is recognizably *Scramble*. It's all there – the rugged terrain, the missiles, even the bonus of a smart bomb. For the ZX81, it's very good value.

And so to the definitive micro *Scramble* – Acornsoft's *Rocket Raid* for the BBC. This is without doubt the best available version for the trainee pilot. Each of its five stages is the one other games have to be measured against.

There can be few more nerve-racking experiences in computer games – no, in life! – than a trip through *Rocket Raid*'s cavern. Shrieking and oscillating wildly the green Phizzers seem to occupy all the available space between the cavern's red walls. You slam on the brakes, you climb, you dive, you blast away frantically. But it's no good; either the Phizzers get you or the walls smash you to pieces. Thank God this is only training, and you've got as many ships as you need, however many end as scrap.

Eventually you learn the secret; you have to find the rhythm of the Cavern. Ride with Phizzers, relax, kill only when necessary and you'll get through. Remember – it's not about points, it's about getting through.

Rocket Raid's superb vivid graphics, its high-decibel sound and its speed all make it, despite its age, still the best version of *Scramble* on a home computer. Prove you've beaten the odds on this one and you might get to be the first Briton on the moon. ●

GAME: WHIRLYBIRD RUN £12.95
MACHINE: DRAGON 32
JOYSTICK: NECESSARY
SUPPLIER: DRAGON DATA

GRAPHICS	6
SOUND	6
EASE OF USE	6
LASTING INTEREST	6
OVERALL	6

GAME: PENETRATOR £5.95
MACHINE: SPECTRUM 48K
JOYSTICK: NO
SUPPLIER: MELBOURNE HOUSE

GRAPHICS	8
SOUND	6
EASE OF USE	7
LASTING INTEREST	7
OVERALL	7

GAME: SKRAMBLE £7.95
MACHINE: VIC 20
JOYSTICK: OPTIONAL
SUPPLIER: SUMLOCK

GRAPHICS	4
SOUND	4
EASE OF USE	5
LASTING INTEREST	5
OVERALL	5

GAME: SKRAMBLE £7.95
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
SUPPLIER: ANIROG

GRAPHICS	7
SOUND	6
EASE OF USE	6
LASTING INTEREST	6
OVERALL	6

GAME: SCRAMBLE £3.95
MACHINE: ZX81
JOYSTICK: NO
SUPPLIER: MIKRO-GEN

GRAPHICS	6
SOUND	NONE
EASE OF USE	6
LASTING INTEREST	6
OVERALL	6

GAME: SKRAMBLE £8.00
MACHINE: DRAGON 32
JOYSTICK: OPTIONAL
SUPPLIER: MICRODEAL

GRAPHICS	6
SOUND	5
EASE OF USE	5
LASTING INTEREST	6
OVERALL	5

GAME: SUPER SKRAMBLE! £9.95
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
SUPPLIER: TERMINAL

GRAPHICS	5
SOUND	5
EASE OF USE	5
LASTING INTEREST	5
OVERALL	5

GAME: SCRAMBLE £5.95
MACHINE: SPECTRUM 16/48K
JOYSTICK: NO
SUPPLIER: MIKRO-GEN

GRAPHICS	6
SOUND	6
EASE OF USE	6
LASTING INTEREST	6
OVERALL	6

GAME: ROCKET RAIDER £5.95
MACHINE: SPECTRUM 16/48K
JOYSTICK: NO
SUPPLIER: C-TECH

GRAPHICS	4
SOUND	4
EASE OF USE	4
LASTING INTEREST	4
OVERALL	4

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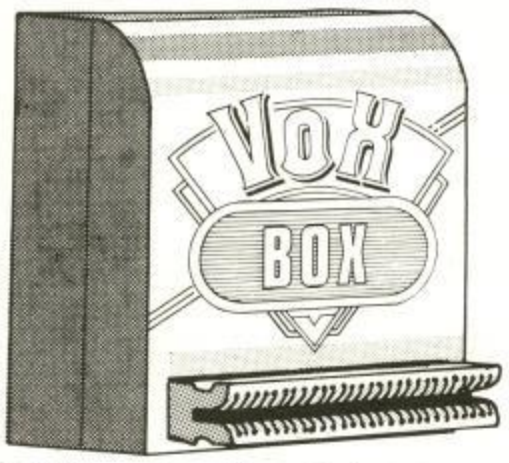

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Steve Cooke meets the driving force of pace-setters Taskset

ANDY WALKER

UP AND RUNNING

Bridlington High Street in January is almost blocked by a vast canary-coloured Chevrolet Camaro with wide-profile wheels. It belongs to Andy Walker, managing director and chief programmer of Taskset Ltd.

Chances are you've never heard of Taskset. They're a comparatively new company, not yet ranked alongside the greats of British software.

That should soon change. With only four games on the market, a PCG Hit, and distribution companies clamouring for the right to distribute their games around the world, this company looks set to have it all in the bag. How did they do it?

A large part of their success has to be credited to the man with the big car. Meeting Andy Walker might confirm all your preconceptions about successful programmers. From his flashy transport and flashy leather jacket down to his flashy white leather slip-ons, you'd be forgiven for thinking that this was another flash-in-the-pan businessman hyping himself. You'd be wrong.

Andy Walker's success springs from hard-core experience in the industry. 'I spent ten years working in government electronics departments,' he said, with the air of a regretful civil servant, 'and all I ever wanted to do was write games programs.'

'In the end, they wouldn't send me on any of the right courses, so I told them where they could stick their job.' But what was the job? At this point, Andy Walker becomes strangely silent. Whatever he was doing before he started writing games, it is apparently not in the interests of national security to reveal it.

Having thrown up a promising career ('but not before I'd bought a house') Andy moved into the arcade market, and before long he was producing Rom-based software for international corporations like Midway and Centuri. It was a crash course in economic survival.

'Seventy-five percent of the companies in the 1981 arcade boom have gone bust, ruined forever by greed,' he declares with feeling. 'The market was totally inundated by rip-offs. Dozens and dozens of companies sprang up overnight, all manned by ex-TV repairmen. There were only half a dozen good programs in the business. The money didn't go back into the industry, it all went on flashy holidays.'

Moving into the personal computer market was a risk that at first didn't seem to pay off. They had terrible problems with the development-system they used to write their programs.

'We tried to do it on the cheap, with a cobbled together version of Tangerines and Commodores. An ingenious system – sometimes we managed to lose a whole week's work at one stroke.' 46 ▶

Walker and Taskset – 'a solid team effort is the only way'

Their first program was *Dig Dog* for the Oric, but they weren't impressed with the machine, and moved over to the Commodore 64. 'It was the nearest thing we could find to the arcade boards we were used to – proper sprites, proper sound chip, and a good video interface chip.' First out on the 64 was *Cosmic Convoy*, followed by *Jammin'* and *Super Pipeline* a hit in the March issue of PCG).

Working in the arcade industry was a sobering experience for Andy. It's given him a hard-headed attitude to the business: 'The guys in the arcade business don't care tuppence about colour and sound – all they care about is the number of dollars in the cash-box.' Andy has inherited some of the distributor's financial hard-headedness, but he also has a programmer's appreciation of what makes good game design.

Sound and graphics have to be of the highest quality, he believes, but sound seems especially important to him. This contrasts strongly with many other software houses who use sound only for effects of the zap and ping variety. The sound in Taskset games is an integral part of the games, and two of their programmers are highly qualified in music theory and synthesis.

'I won't be out-*Froggered*,' he says defiantly, alluding to the catchy tune which accompanies the popular arcade game. Listening to *Jammin'* – a game that Andy describes as 'an ode to Bob Marley' – one is inclined to agree that he is one, if not ten, hops ahead of the field where music is concerned.

Originality too is all-important. Anything else, reckons Andy, 'is about as interesting as last week's news'. He obviously has no doubts that the wave of piracy that brought the arcade market to its knees could do infinite harm to the games software industry.

'I have NEVER bought a ripped-off game' he says, prodding savagely at his prawn sandwich with all the moral indignation of an ex-civil servant.

'Seventy-five percent of the companies in the 1981 arcade boom have gone bust, ruined forever by greed'

if we've been working on it for weeks' – and an aggressive approach to overseas markets. 'You've got to be multi-national. The market in the UK simply isn't big enough to feed seven people and two Sage program-development systems.'

What does he reckon the market has in store for the games player? 'It'll go the way of the music business, with chart hits, different 'cults', and heavy promotion by the big chains.'

Chart hits, of course, are already with us. What about the 'cults'? 'Well,' he says, 'the shoot-'em-up freaks are the Status Quo fans of this world, aren't they? We have adventure versus arcade games, and the distinction there is like the one between folk music and rock.'

He goes on to paint an impressive picture of games of the not-so-far-future with different computers linked through the telephone network. 'Soon you'll be able to make an appointment with a friend in Watford to meet tomorrow night round the back of Saturn. The next night, there you are and there he is waiting for you on your screen, when suddenly you realise someone from Wigan is there first, and he blasts you.'

Games like this, Andy reckons, will have a big effect on society. 'You won't be able to ignore the guy next door when he can zap you out of the sky.' I expect this

Walker, Chevvy...and spies from Llamasoft?

In the relentless pursuit of originality, what are his policies in choosing programs? 'I don't choose programs,' he says, 'I choose people – the right people to do the work in-house. Academic qualifications don't count,' he continues scornfully, 'a solid team effort is the only way – no one man can produce a winner every time, unless his name's Jeff Minter' he adds with the admiration of one pro for another.

Other vital factors include a ruthless assessment of their output – 'If we're not 100% happy with it, we'll dump it – even should come as good news to Andy's neighbours – they must be heartily sick of trying to keep up with the Walkers.

Whatever games the future brings, Andy Walker is obviously determined that the Taskset name will be on them. Bidding him farewell at Bridlington station, I made a last comment on the flashy car. 'I think I'm entitled to some enjoyment,' he grinned, 'the police all know me by now anyway.'

Pretty soon, if Andy Walker has his way, a lot of other people will know him too. And Taskset. ●

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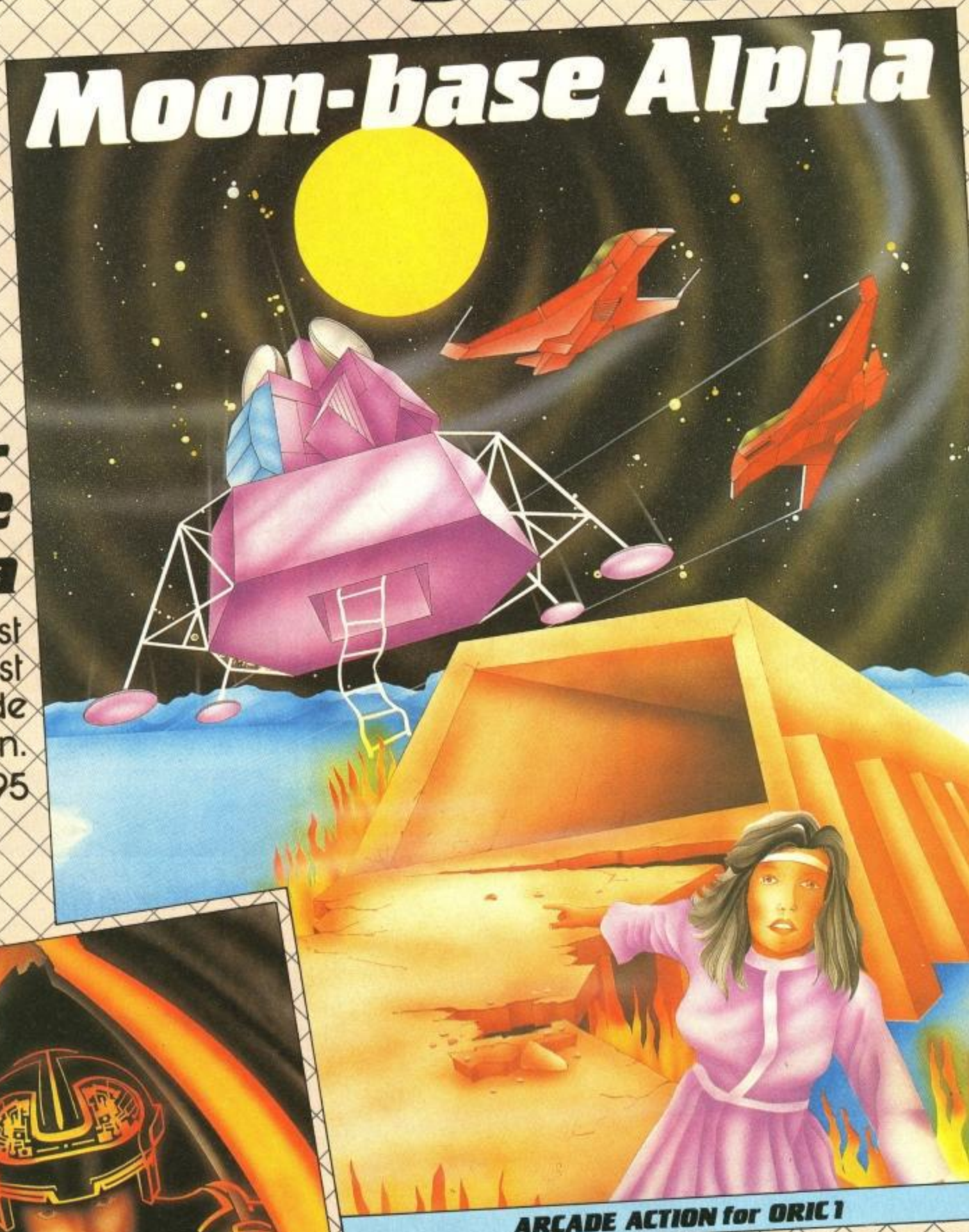

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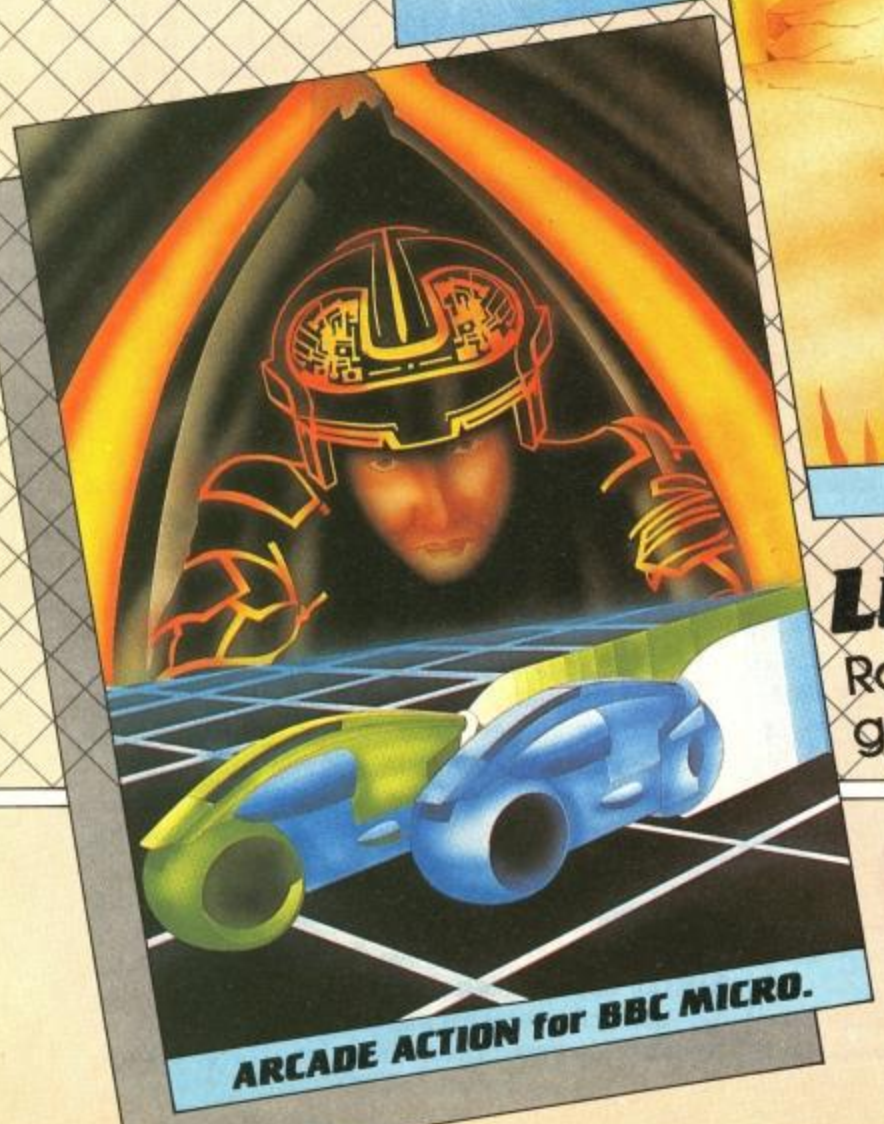

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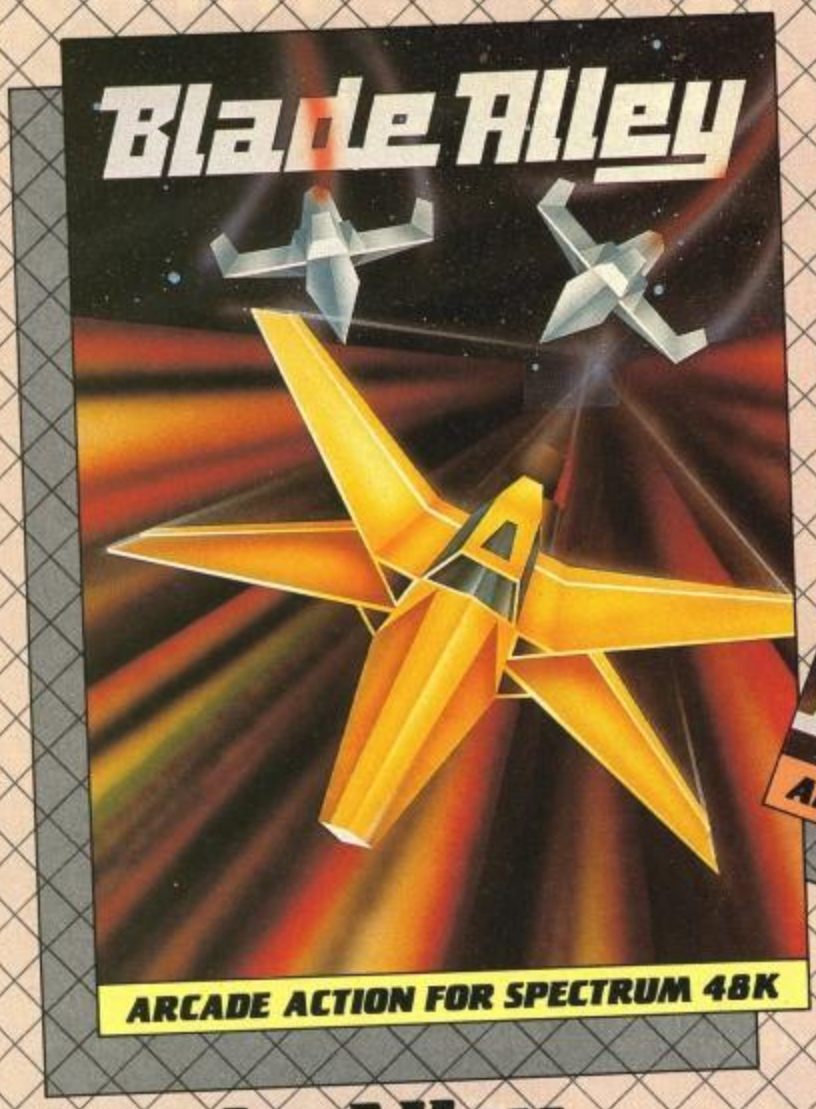

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This is 'ZIGGY', shown above, in his exploratory capsule and is a true representation of the on-screen graphics.

THE PYRAMID

THE PYRAMID is an arcade style game which has a very adventurous feel to it.

The Pyramid contains 120 chambers on 15 levels. In order to get from one chamber to another you must fight off the indigenous aliens to collect an energised crystal which will neutralize the force field guarding the two exits.

The Pyramid is inhabited by a total of 60 weird and exotic alien types, all of which are beautifully animated. You will meet a whole variety of demons, droids, insects and monsters, with a sprinkling of the more unusual, the extra-terrestrial tweezers, galactic strawberry, cosmic claw, mutant eye, plus a whole host of entities that defy rational description. You'll no doubt invent your own nicknames.

You proceed to explore the pyramid from top to bottom with the difficulty generally increasing with the depth of level. Depending on the choice of exit from each chamber you are likely to have a different game every time you play.

Apart from the challenge of trying to achieve the highest score possible the pyramid contains a number puzzle to solve. The more chambers you successfully visit the more information is gathered to enable you to discover the secret numbers of the pyramid. The puzzle won't take you days to solve, it will probably take you a few months.

DOOMSDAY CASTLE

DOOMSDAY CASTLE consists of a labyrinth of 74 complexly interconnected Halls and Passages where you will meet a whole host of adversaries serving the infinitely evil Scarthax, the Garthrogs, the Orphacs, the phenomenally nasty Googly Bird and the Urks which manifest themselves in over fifty unbelievably weird and wonderful guises.

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To save the Universe, you must battle your way through the Castle to find and collect the six stones and use their force against Scarthax to destroy Doomsday Castle, hopefully escaping yourself before the final cataclysmic explosion.

The task is not easy (saving the Universe never is!) and it will take you many games to unfold the structure of Doomsday Castle and discover the locations of the ancient stones.

The addictive arcade style action will keep you coming back to play but the overall challenge should still keep you occupied for months.

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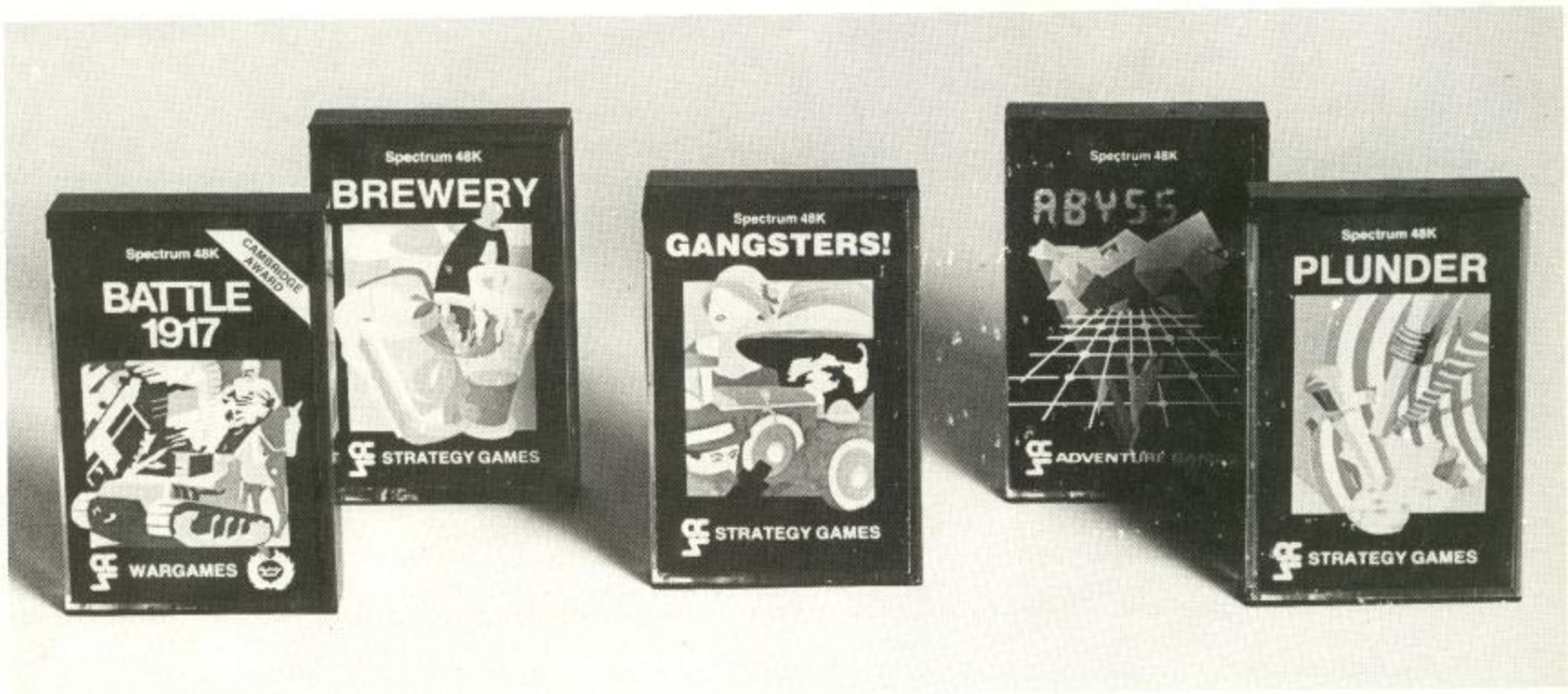

**Strategy Games.
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We weigh up a ton of new games and give you screen shots, detailed ratings and the most enjoyable reviews this side of Jupiter

VERDICTS ON 100 GAMES

It's been another exhausting month for our games experts. Steve Cooke, Peter Connor, Steve Mann, Stuart N Cooke, Chris Anderson and Tony Harrington have worked their way through a mountain of tapes, sifting the dross for the mega-superb.

In the latter category come an amazing stack of games for the Commodore 64, the machine of the moment. It accounts for this month's Game-of-the-Month, and three PCG hits, all very special stuff.

But Dragon owners have a treat in store with *Kriegspiel* and adventure lovers on almost all machines can enjoy the new offering from Level 9.

All the ratings are out of 10 and care has been taken to ensure that they are as authoritative as possible. Read on.

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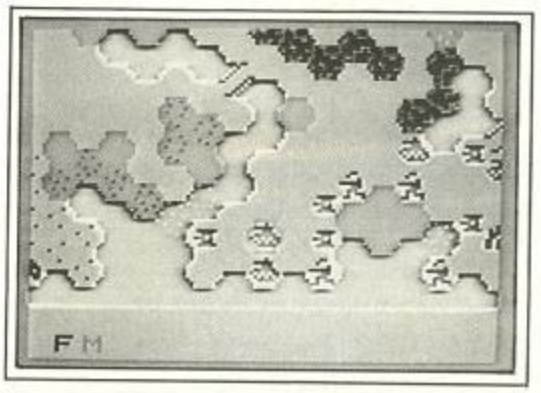
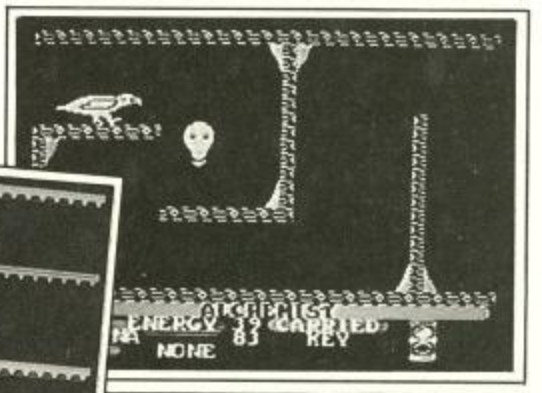
● FORBIDDEN FOREST



● KRIEGSPIEL



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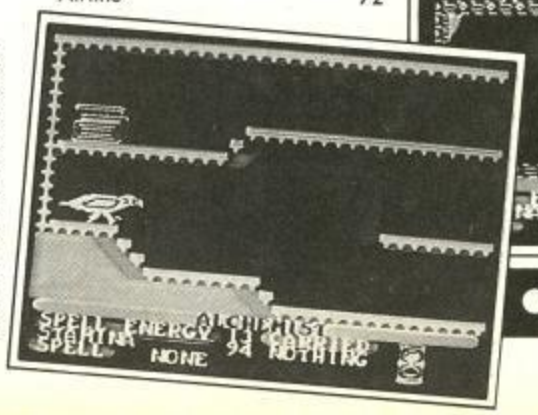


GAME: GALAXY
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ANIROG SOFTWARE
PRICE: £7.95

And yet another *Galaxians* game, this time of superb arcade action quality. The scale of the graphics is small but the pace is furious.

This game has all the quality of the amusement arcade machines. The various types of enemy craft make their entrance in beautiful spiral formations – a machine gunner's dream. If your trigger finger works fast enough, nearly all the sting can be taken out of the attack waves as they make their entrance.

The sound is marvellous and continuous. The enemy ships give off a high-pitched wail as they attack, punctuated by your lazer bursts. There are three kinds of target ships, blue, red and the yellow 'mother-ships', which turn green the first time they are hit. The mother-ships try and trap your craft with a traction beam. It's easy to avoid the beam, but it's not good policy to do this. Best play is to let them capture one ship, then try and release the imprisoned craft by shooting down the mother-ship. This gives you two craft on the screen, doubling your firepower.

One very nice feature is a 'challenge'

GAME: STELLAR DODGER
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: TERMINAL SOFTWARE
PRICE: £7.95

Although it's yet another version of *Lunar Lander, Stellar Dodger* is a good deal more interesting to play than most of its ilk.

As usual, you have to choose your moment to drop from the mother ship and then navigate your way very carefully through a horde of asteroids down to any one of three bases. That much is dead standard.

The interest comes in the flight controls, which take some skillful handling. Your remaining fuel is displayed as a red line on the right hand border. Pressing 'F1' fires the thrust motor, while 'F3' cuts it. Getting down to the surface in one piece is relatively simple. The problem lies in getting back and docking successfuly with the mother ship.

The asteroids are as thick as fleas, so firing the motor to get out of the line of one cluster automatically makes you a candidate for another. You have to be a pianist or have the reflexes of a 12-year-

GAME: GENESIS
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: DATASOFT
PRICE: £8.95

This American import is based on a game that used to be quite popular in the arcades. I can't remember its name, and if this version is anything to go by that doesn't really surprise me.

You manoeuvre your laser-equipped Space Scorpion around the perimeter of a large rectangle. Some very unexciting graphics shapes then trail out from the centre of the screen, creating a vague 3D effect. You must blast them before they reach the perimeter.

If you fail to hit them in time, they will return to the centre of the screen, leaving a gap in the perimeter behind them. Moving your scorpion over this gap will send it hurtling to its doom.

As you rush around the edge blasting away, red and green squares also move back and forth along the perimeter. Bumping into the red square costs you a life, bumping into the green square provides you with a shield against both the red square and any gap which

GAME: GRIDTRAP 64
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: LIVEWIRE
PRICE: £8.95

This is an excellently presented game, with a lot more to it than meets the eye.

Before you start the program offers you the choice of sound or silence, and the option to define your own control keys. There are nine skill levels and you have five lives.

The screen is divided into squares, and you control a little man as he hops from one square to the next. Each time he steps on a square it is removed from the grid. Mr Livewire (as he is called) cannot cross the gaps he leaves behind him in his travels.

Time-bombs, flags, and skull-and-crossbones appear on various squares. Mr Livewire must pick up the flags, avoid the skulls, and defuse the time-bombs before they explode. You must avoid the giant boot which will cost you a life if it catches you.

Once you have dealt with five time-bombs you move on to the next level. Here you face an extra boot, and the time-bombs explode quicker. You can

PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★

GAME: JUMPIN' JACK
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: LIVEWIRE (SUMLOCK)
PRICE: £8.95

Jumpin' Jack has to be THE version of *Frogger* for the 64. The excellent 3D graphics and sound plus superb presentation make this a winner.

The program comes well documented with full instructions. Once loaded you have the option of a silent or musical game, one or two players, nine levels of play, and even a manual step through the demo screens.

A joystick is recommended but if you don't have one you'll be pleased to know that you can define your own movement keys.

If you're not familiar with the game of *Frogger* (where HAVE you been the last two years?) then you should know that it involves hopping your frog from the bottom of the screen to the top.

The luckless amphibian must cross a busy road without getting squashed, and then hop across a river using logs and turtles as stepping stones. If he falls in he drowns. Not very true to life I admit, but then this is a game, not a biology lesson.

There are five 'landing bays' at the top, and if you get a frog in each one you get bonus points and a passport to the next, faster, level of play.

Jumpin' Jack is almost identical to the arcade version, with dragonflies, lady frogs, and of course the traffic, logs, and diving turtles.

At the higher levels the traffic moves very fast indeed, and crossing the road without getting splatted isn't easy. After level three your frog also has to avoid snakes, crocodiles, and otters.

There is a Hall of Fame for high scorers, and the chance to win a prize if you do really well. Bonus frogs are awarded every 20,000 points.

This is an excellent implementation of the original version. For once, I think I can truly say that I prefer the home offering to the one in the arcades. **SC**

GRAPHICS	9
SOUND	7
EASE OF USE	9
ORIGINALITY	3
LASTING INTEREST	8
OVERALL	8

64 • COMMODORE 64

screen, after every three or four waves, which gives you four waves of enemy craft, in 'duck-shoot' formation. The program keeps tabs on how many you hit and awards you bonus points, depending on your level of hits. Very satisfying.

Another thoughtful little touch is that the program starts off by offering you two different ways of configuring your keyboard controls (it also gives you the option of using a joystick). Highest score and present score are on a blue panel at the side of the screen as you play. A must for all *Galaxian* fans. **TH**

GRAPHICS	8
SOUND	5
EASE OF USE	7
ORIGINALITY	5
LASTING INTEREST	5
OVERALL	6

old arcade junkie to weave your way through.

Sound-wise this game is just about par for the course. Each game has its little introductory jingle. Thrusting gives you a sheet of white sound and bombing an asteroid produces a grand explosion.

I would have expected a little more imaginative use of sound if the graphics hadn't been so banal. Whatever this game has it gets from the navigational skills it demands. **TH**

GRAPHICS	5
SOUND	4
EASE OF USE	6
ORIGINALITY	3
LASTING INTEREST	4
OVERALL	5

otherwise you might fall into.

One novel feature is that bonus scorpions are awarded according to the accuracy of your fire rather than the size of your score.

So why does this game fail to excite much enthusiasm? Because it's repetitive and fails to present much of a challenge. The graphics might be OK on a Spectrum, but on the 64 they're pathetic. The only good thing about the game is the sound. **SC**

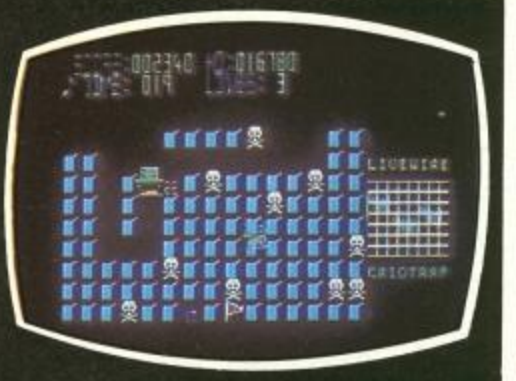
GRAPHICS	2
SOUND	7
EASE OF USE	5
ORIGINALITY	6
LASTING INTEREST	4
OVERALL	4

be pursued by up to four boots at once.

Strategy enters the game when you find yourself cut off by blank squares. You can then scroll the row you are on to bring a filled square next to you, but rows can only be scrolled until a flag or skull reaches the edge of the screen.

Although fairly simple in concept, *Gridtrap* is a challenging game that requires a good deal of strategic thinking in order to get high scores. If you do really well there's a competition for you to enter as well. **SC**

GRAPHICS	6
SOUND	6
EASE OF USE	8
ORIGINALITY	5
LASTING INTEREST	6
OVERALL	7



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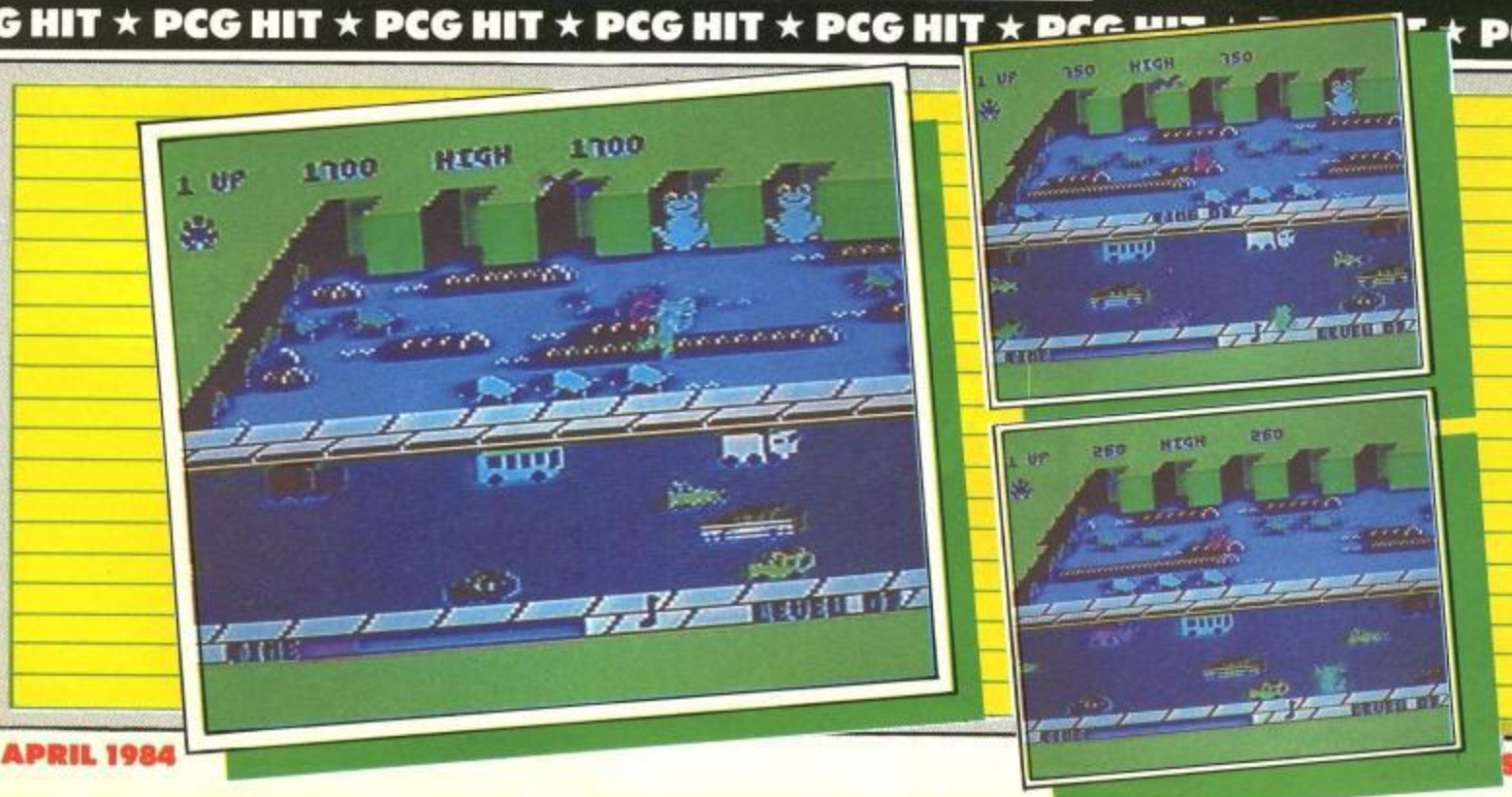

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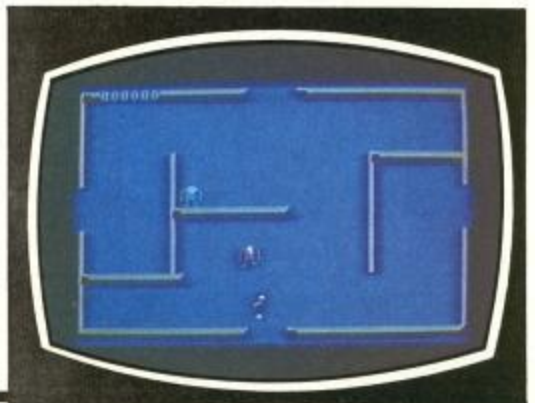
64 • COMMODORE 64

GAME: CYBERMEN
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: J.B. MORRISON MICROS
PRICE: £6.95

Cybermen is a well designed maze game. You walk your man through the maze, searching for the randomly distributed 'platinum ingots' and trying not to bump into the walls or into the Cybermen. If you hang about the 'Overseer' comes after you. Good value. **TH**

GRAPHICS	7
SOUND	5
EASE OF USE	7
ORIGINALITY	6
LASTING INTEREST	6
OVERALL	6



GAME: BONKA
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: JB MORRISON
PRICE: £6.95

A rather ordinary version of *Space Panic* in which you dig holes to trap monsters. Fails to utilise the machine's huge potential. The review copy contained one or two bugs. **CA**

GRAPHICS	3
SOUND	3
EASE OF USE	5
ORIGINALITY	1
LASTING INTEREST	4
OVERALL	3

GAME: XERONS
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: SUPERSOFT
PRICE: £5.95

A version of *Galaxians* with whirling starfish-like creatures in purple and green, and all the usual features. Graphics nice, but sound can only be called a disappointment. **PC**

GRAPHICS	7
SOUND	4
EASE OF USE	7
ORIGINALITY	0
LASTING INTEREST	6
OVERALL	6

GAME: MANIC MINER
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: SOFTWARE PROJECTS
PRICE: £7.95

It was a great game on the Spectrum and this is almost an exact copy. So it must be great, right? Wrong. It's disappointing, completely failing to exploit the Commodore's superior capabilities. **CA**

GRAPHICS	4
SOUND	4
EASE OF USE	8
ORIGINALITY	1
LASTING INTEREST	8
OVERALL	7

GAME: VULTURES
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: J.B. MORRISON MICROS
PRICE: £6.95

Another *Galaxians* re-run. Instead of spaceships attacking, you have to gun down the vultures as they peel off and attack. If one gets to your man it carries him off. Dull stuff. **TH**

GRAPHICS	6
SOUND	5
EASE OF USE	4
ORIGINALITY	2
LASTING INTEREST	4
OVERALL	4

GAME: WILDFIRE
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: SUPERSOFT
PRICE: £6.95

'Alien robots armed with flamethrowers are attacking.' But don't worry – you've got an extinguisher and some 'firebreaks.'

There are nine buildings, all a kind of maze. The game lacks any burning interest. **PC**

GRAPHICS	5
SOUND	5
EASE OF USE	7
ORIGINALITY	5
LASTING INTEREST	4
OVERALL	4

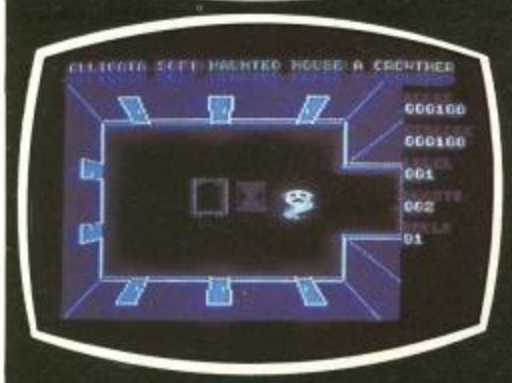
GAME: QUASAR
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: VOYAGER
PRICE £8.00

Somewhere in deepest hyperspace, between the twinkling stars of Zaxxon and Scramble, lies Quasar.

The scenario demands that you 'destroy the Etron rocket base on the planet Hagon'. In your efforts to do so you will encounter features from both of the above mentioned arcade superstars.

The main attraction for games fanciers will certainly be the 3D effects, which are very convincing and really add to the game's appeal.

Indeed the graphics are remarkably similar to those in *Megahawk* reviewed on page 65.

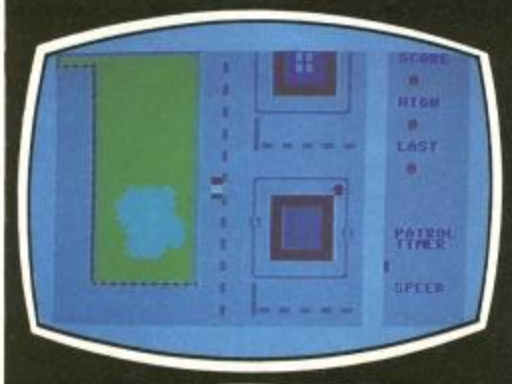


GAME: HAUNTED HOUSE
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: ALLIGATA
PRICE: £7.95

Someone must have cast a spell on Alligata – this game is a mere ghost of some of the excellent offerings they have produced for the BBC.

A shame that, because it's a nice idea: a man in a haunted house with you taking the part of the ghoul who chases him around. Trouble is, this particular haunted house seems to have only two rooms.

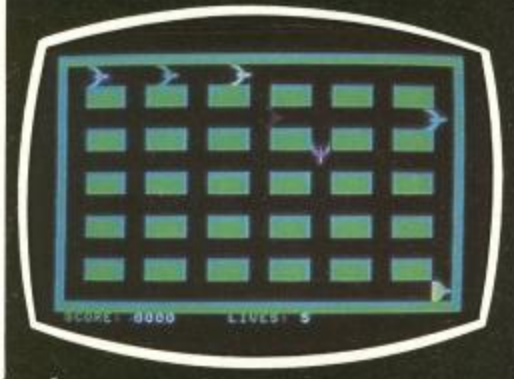
In room one you wait for the man to appear from one of eight doors and try to catch him before he grabs they key in



GAME: SIREN CITY
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: INTERCEPTOR MICROS
PRICE: £7.00

A superbly conceived and beautifully written program. *Siren City* consists of a blow-up of a city road map, complete with trains that materialise across the railway tracks, other vehicles that dart out of blind corners and even a passing plane.

You have to drive a police car round the streets without hitting anything. Pushing the joystick forward in the direction you are going accelerates the car, pulling it back, brakes you. Turning is done by simultaneously hitting the fire



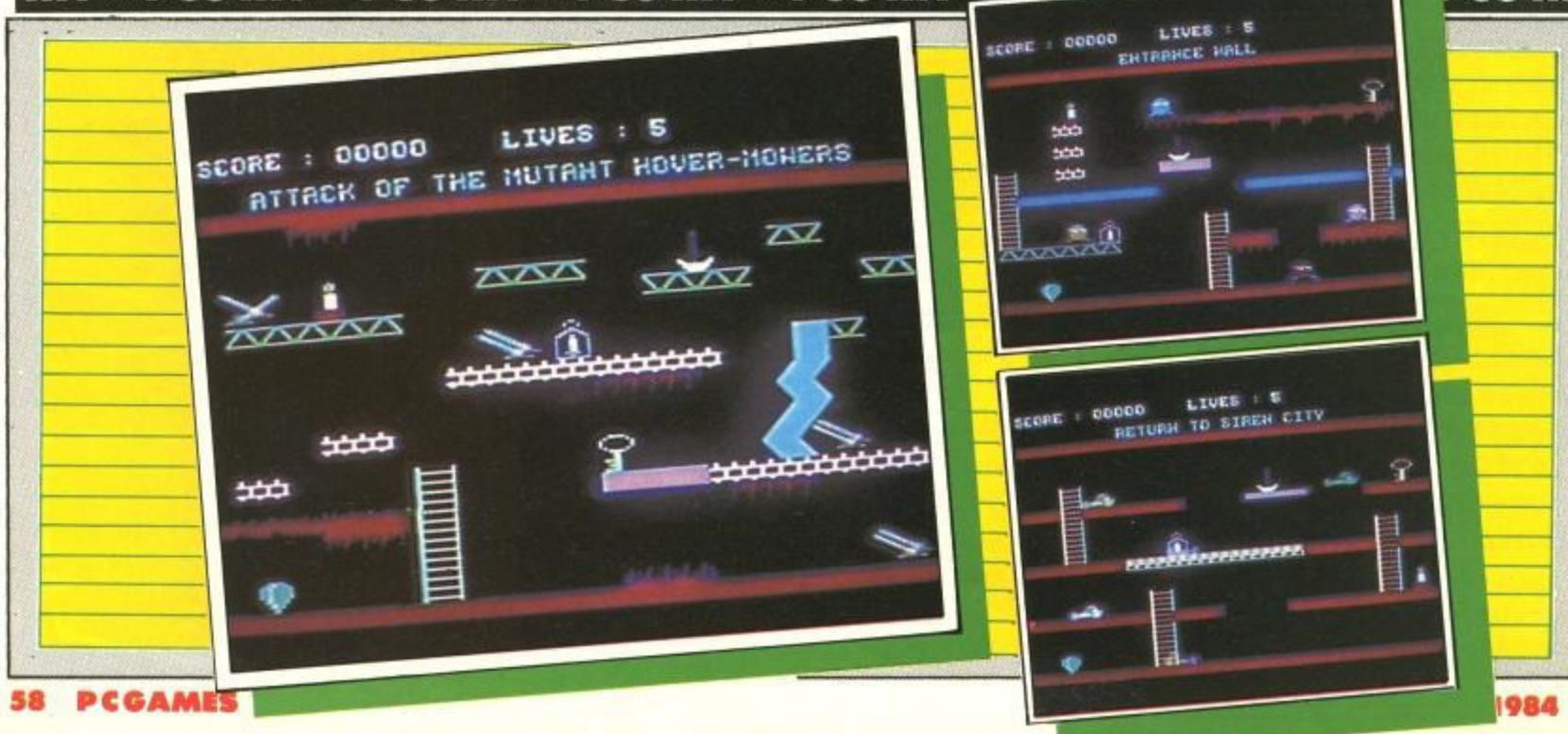
GAME: HUNTER
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: TERMINAL SOFTWARE
PRICE: £7.95

This is one of those games where the screen is divided into a grid, and you move your craft along the interesting lines. You are being pursued by six alien ships, who attempt to rob you of one of your five lives by colliding with you.

Your task is to avoid the opposition, and fire along the tracks to destroy them. Once you've cleared all six ships from the screen you move on to the next level.

There is no difference between the levels apart from the speed of the action.

HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG



RE 64 • COMMODORE 64

The first stage takes you into the 'fearsome space tunnel'. This is a 3D alley through which your ship hurtles trying to blast the Astrofighters zooming at you from front and rear.

After disposing of these you encounter, at the end of the brown and green striped tunnel, curious creatures on stilts which cannot be destroyed.

Next there is space, again with the fighters but with the added obstacle of the deadly asteroids.

A few trillion parsecs bring you to the third stage, where you have to hug the ground and blast the Etron rockets. Unfortunately the landscape here is not very interesting. Then it's back to the alley for more fighters and the indestructible walls. Get through this and you can have a go at the Etron base.

Quasar is a very enjoyable game but just misses being in the top bracket, mainly due to its graphics which are a little on the chunky side. They do, however, scroll very smoothly and control of the craft is easy. **PC**

GRAPHICS	7
SOUND	6
EASE OF USE	7
ORIGINALITY	7
LASTING INTEREST	7
OVERALL	7

the middle of the screen.

If you succeed you get points and he then appears from another door. If you fail he disappears rapidly into room two, which the instructions call 'the cellar'.

Here your task is simply to guide the ghost around a simple spiral maze avoiding two wriggling snakes. If you succeed, it's back to room one and start again.

I'm afraid that's almost all there is to it. No jumping or shooting. No elaborate strategy or tactics. Just the simple matter of ghost-guiding.

Admittedly once you've captured more than 20 men, bats start to appear, making life more difficult; and capturing another 20 takes you on to further levels of difficulty.

But difficulty doesn't equal interest. And although the action in room one did offer moments of enjoyment, there are plenty of more interesting games. **CA**

GRAPHICS	5
SOUND	4
EASE OF USE	6
ORIGINALITY	8
LASTING INTEREST	2
OVERALL	3

button and pushing the joystick hard in the direction you want to go. As the blurb on the cassette cover says, even skids and U-turns are possible with this game.

As if simply driving about the city streets wasn't difficult enough, there are a couple of escaped villains to be hunted down on your travels, dragster ace Slitthroat Steve and helicopter pilot Dune-Buggy Jon. I had enough trouble just staying on the road once I'd built up some speed, but better drivers might actually manage to blow up a villain or two.

Because of the complexity of the graphics, this game takes around 13 minutes to load. Most roadrace addicts will reckon the wait to be worth it. The novelty value in *Siren City* is high, so it's difficult to tell how long it would take before driving a patrol car around those streets would be as boring as city driving is in reality. **TH**

GRAPHICS	9
SOUND	7
EASE OF USE	7
ORIGINALITY	9
LASTING INTEREST	8
OVERALL	8

The game starts agonizingly slowly, but gets very fast indeed the longer you manage to stay alive.

Unfortunately the need for quick reflexes makes the choice of control keys unacceptable. '←' for left, 'Del' for right, '1' for down, and 'Home' for up means you're better off with a joystick. If you don't have one you should think twice before buying.

Hunter has no graphic attraction whatsoever, and the sound is pretty elementary too. However, the aliens develop some impressive tactical skills at the higher levels of play, and hunting them down becomes a real challenge.

Hunter doesn't really have much to offer, but if you don't mind the simplicity of the game, you may find it quite absorbing.

I can't help feeling that more use could have been made of the Commodore 64's potential to improve this game. **SC**

GRAPHICS	2
SOUND	4
EASE OF USE	4
ORIGINALITY	3
LASTING INTEREST	5
OVERALL	4

★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★

GAME: CHINA MINER
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: INTERCEPTOR
PRICE: £7.00

If you've admired *Manic Miner* for the Spectrum, you'll really dig this program.

It's an unashamed rip-off complete with conveyor belts and collapsing floors, but the miner is called Wally instead of Willy and it's a lot, a LOT more difficult.

If you're unfamiliar with the game, think of it as a series of obstacle courses. You have to complete each obstacle course in turn, but if you lose your five lives it means starting again from course (or 'screen') number one.

The screens in *China Miner* are all original and include some enjoyable new hazards such as moving floors, chutes and flashing laser beams. There are also the usual in-jokes such as cribbing characters from other games as monsters.

There are a total of 30 different screens, representing incredible value for money if you ever get to see half of them, which is doubtful.

It could, for example, take a good hour to work out how to get through the first quarter of the first screen. Because to get past one monster (a Pac-Man on legs) you have to make an immaculately-timed double leap, followed by a quick dart back to escape up a ladder.

It seems impossible until you do it. And you can imagine the frustration at working your way through similar difficulties on later screens. You'd rapidly use up your five lives and then have to play for another hour for another try.

The graphics are clearer and more colourful than on the Spectrum version and the action is accompanied by a tune in glorious three-part harmony.

So although *Manic Miner* rip-offs are surfacing faster than salt in Siberia, you'd have to dig deep to find a better version than this. **CA**

GRAPHICS	9
SOUND	8
EASE OF USE	5
ORIGINALITY	5
LASTING INTEREST	9
OVERALL	8

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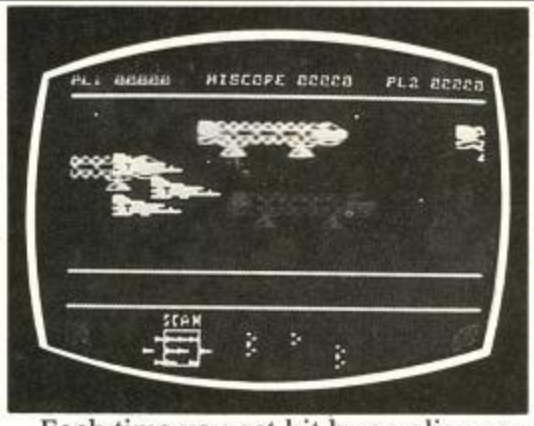
GAME: COSMIC CONVOY
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: TASKET
PRICE: £6.90



GRAPHICS	8
SOUND	6
EASE OF USE	4
ORIGINALITY	6
LASTING INTEREST	4
OVERALL	5

Cosmic Convoy has one of the most impressive opening sequences I've ever seen, but the rest of the game doesn't quite live up to its introduction.

A group of cargo ships is making its way from one planet to another. You command a defence force of three fighters assigned to protect the convoy from enemy craft.

There is a long range scan at the bottom of the screen that covers the entire area between the two planets, showing the relative position of the convoy and the approaching aliens.

Each time you get hit by an alien you lose one of your fighters and therefore a third of your firepower. Freighters are destroyed by collision with aliens, which of course you must try and prevent by destroying them before they reach the convoy.

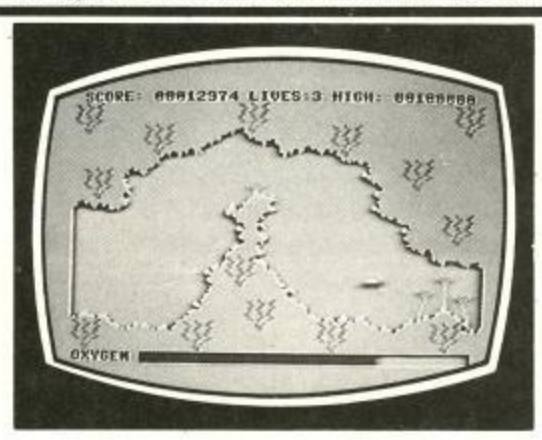
When you finally get to your destination you are awarded a medal, a bonus score, and the onerous task of escorting the convoy on to the next planet.

The real problem in *Convoy* is that the graphics are on too large a scale when compared with the area covered by the screen so that manoeuvrability is severely limited.

Add to this the fact that the game is agonizingly slow and you have a frustratingly disappointing program.

I can't see people flocking to the shops for this one. **SC**

GAME: NEPTUNE'S DAUGHTER
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: ENGLISH SOFTWARE CO
PRICE: £9.95



GRAPHICS	6
SOUND	5
EASE OF USE	2
ORIGINALITY	7
LASTING INTEREST	3
OVERALL	4

This is a game for those with sub-aquatic tastes and a great deal of time on their hands.

The snorkel you'll need because it's an underwater zap; the time because it's so difficult as to be almost unplayable.

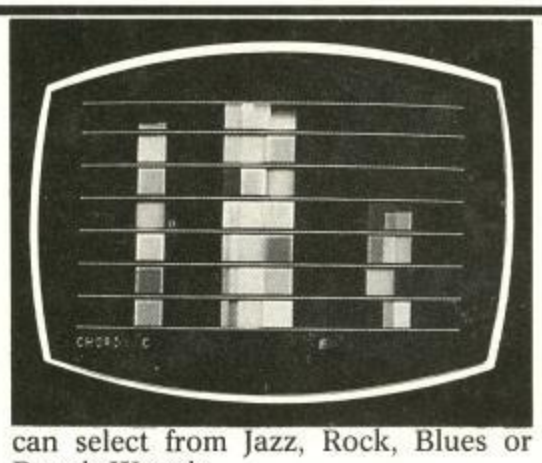
The plot is attractive: not far from Neptune's Palace is an evil sea-serpent whose staple diet is sea-horse. It seems, though, that he prefers Neptune's luscious daughters. Your mission is obvious – get that monster.

You start off in the first cave facing deadly pink octopuses and the 'suckers' which guard the entrance to the next grotto. Your harpoon is an efficient weapon, but ... the movement of your frogman is so jerky that it's virtually impossible to avoid being punctured on the rocks or stung by an octopus.

Frustration is increased by the fact that wherever you die you always return to the first cave.

Eventually you just give up and forget about the amoeba swarms and monster crabs you've been promised. It's a pity because it looks as though it might have been an intriguing game. **PC**

GAME: DANCING FEATS
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: MUSIC
SUPPLIER: ARTIC
PRICE: £6.95



GRAPHICS	7
SOUND	9
EASE OF USE	8
ORIGINALITY	9
LASTING INTEREST	6
OVERALL	7

Dancing Feats' gimmick is that you use the joystick as your musical instrument. Because of this, it's a very easy program to use.

There is one basic tune which can be produced in a variety of styles. The main menu has five headings; Bass, Beat, Style, Tempo, Ending.

Each of these main headings has a number of choices. For your bass you can select from Jazz, Rock, Blues or Boogie Woogie.

The idea is simple enough even for the severely tone-deaf: you waggle the joystick around and get different notes.

Move round in a circle and you get a 'riff of melodic sounds'. Move up and down and you get individual notes. If you press the fire button you move an octave down. As you play the music is represented on screen by bars of colour moving up and down.

Dancing Feats is great fun to play at first but does become a little tedious after a while, mainly because of the limited background tune. **PC**

GAME: SUPA CATCHA TROOPA
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: ABRASCO
PRICE: £7.50

GRAPHICS	6
SOUND	4
EASE OF USE	8
ORIGINALITY	7
LASTING INTEREST	2
OVERALL	3

Steer a boat left and right to catch paratroopers. If you miss them you throw a net to save them being eaten by a shark.

The graphics are certainly reasonable, but the game itself is rather boring. Unlike the sharks, you have nothing to get your teeth into. **CA**

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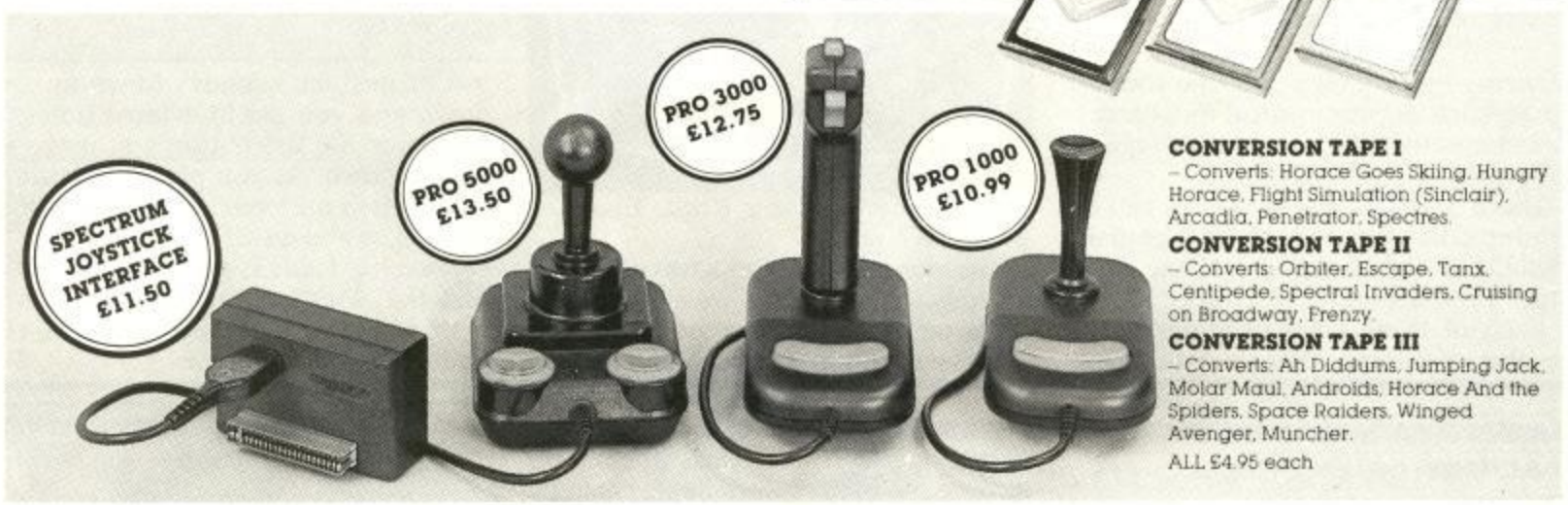

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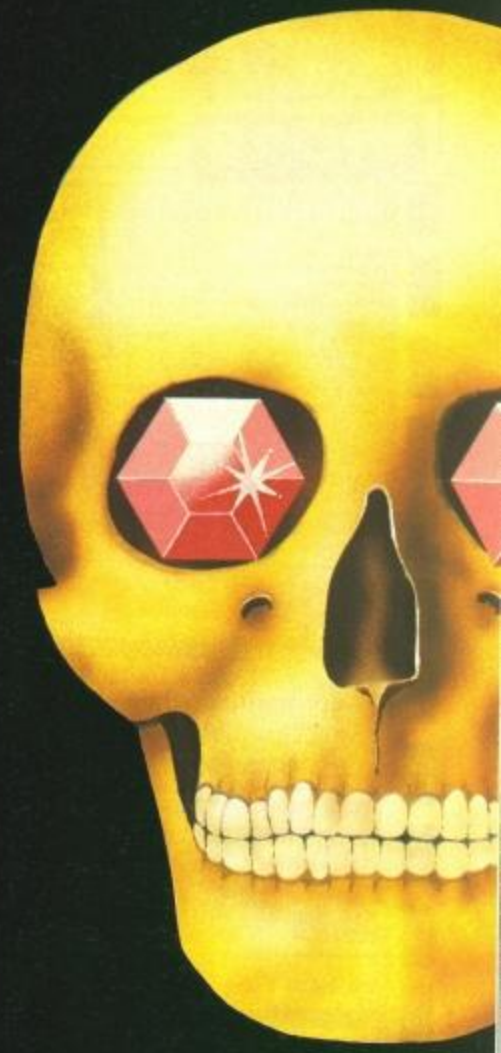

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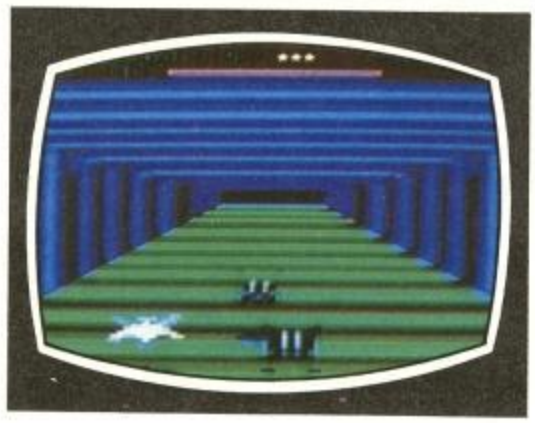
E 64 • COMMODORE 64

GAME: MEGA HAWK
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: BIG G
PRICE: £6.95



GRAPHICS	9
SOUND	5
EASE OF USE	6
ORIGINALITY	7
LASTING INTEREST	8
OVERALL	8

The 3D graphics in this Buck Rogers type game are spectacular.

You begin with coloured bands moving smoothly to the edges of the screen, giving you the perfect illusion of hurtling down a tunnel (or, as it's supposed to be, a time-warp).

Your megahawk is an impressive beast, but even more impressive are the deadly bat-like creatures which rush toward you complete with flapping wings and fearsome shadows.

If you survive for a minute or so, you emerge into open space where your enemies become a series of coloured spacecraft. These start as small dots before rushing unnervingly toward you.

Survive these and you emerge onto a plain populated by more winged creatures, spacecraft and what Jeff Minter would call mutant kangaroos.

More adventure still lies beyond, but few ever come back to tell the tale.

This game (which is similar, but slightly superior, to *Quasar* reviewed on page 58) provides yet another example of the high quality programs now available to Commodore 64 owners. Believe me, nothing like this is possible on a Spectrum.

But despite the excellent 3D effect, some of the nasties are less than convincing. Also, the sound doesn't fully exploit the machine's potential.

But quibbles apart, *Mega Hawk* offers mega-excitement and it'll turn your local Spectrum owner green. **CA**

PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★

GAME: AZTEC CHALLENGE
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: AUDIOGENIC
PRICE: £12.95 DISK, £8.95 CASS.

GRAPHICS	9
SOUND	8
EASE OF USE	7
ORIGINALITY	9
LASTING INTEREST	8
OVERALL	8

It's thrill-a-minute stuff here as you flee from the sacrificial altar in the ancient Aztec empire, facing all manner of dangers in preference to ending up as Exhibit A in the Temple Museum.

The game begins simply enough. All you have to do is run like mad towards the great pyramid in the distance. Trouble is, your Aztec pals are a bit put out at your refusal to be chopped up on the altar, and they do their best to skewer you with their spears.

Your only hope at this point – and throughout the game – is your agility, and you immeditely put this to good use by either leaping over the spears or ducking under them.

After running the gauntlet you must scale the pyramid stairway, avoiding boulders that tumble down and crush you on contact. If you survive this onslaught, it's into the temple for a quick tango with the traps.

Avoiding the traps involves either jumping over holes in the ground and spiked barricades, or else dodging falling spears and rocks. Good old Aztec hospitality.

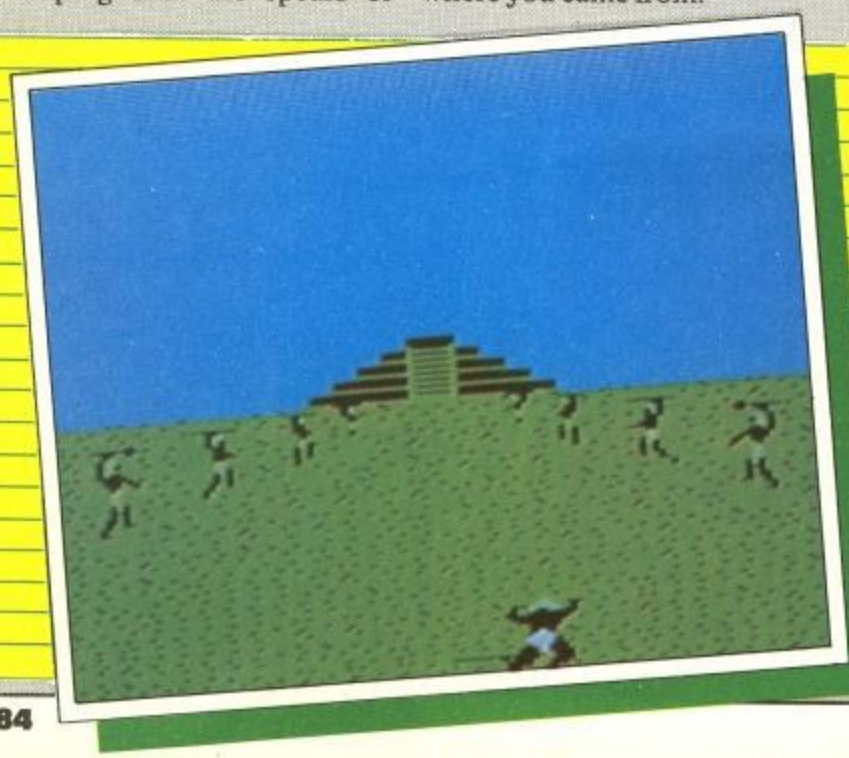
Having passed the traps you find yourself in the depths of the Temple, where all sorts of friendly folk drop in for dinner. I needn't tell you who's on the menu – just jump like hell and get out of there as quickly as possible.

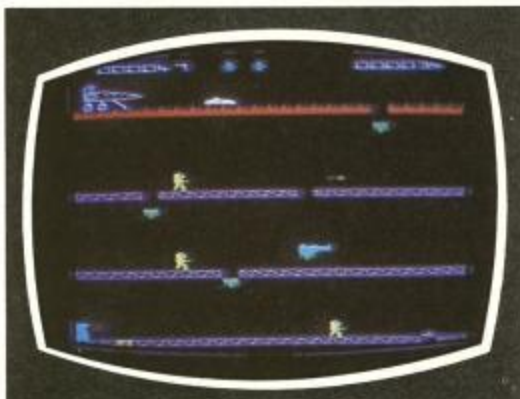
Next you must hop across a hallway, jumping from one tile to the next. Some of the tiles are fatally unreliable – but you can't tell which ones. Pity about that, but then there are another five where you came from.

This is where the piranhas come in, and you'll soon wish they hadn't. Swim across the river – you're safe if you duck under the surface, but you can't stay there for long.

If you've got this far, then all you have to do is cross the bridge to freedom. Best of luck mate, and watch out for the gaps. It's a long way down.

Another great game from the programmer of *Forbidden Forest* (see Game of the Month this issue). If you can't get down to the woods then go native instead. **SC**



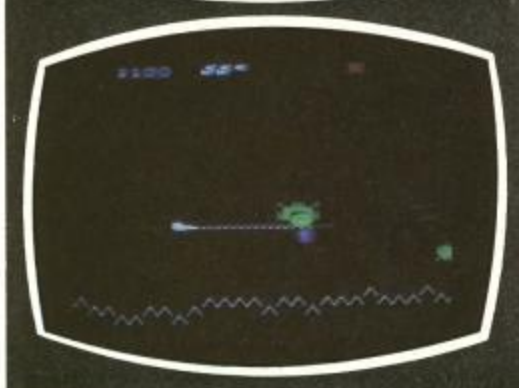


GAME: COSMONAUT!
MACHINE: VIC 20 UNEXPANDED
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: MELBOURNE HOUSE
PRICE: £5.95

This is known in the trade as a platform game. Nothing to do with British Rail; you simply control a little man who goes running and leaping over a series of platforms avoiding nasties.

In this case the man is a cosmonaut and the nasties are a shuttling spaceship and stormtroopers armed with laser guns. You have to use lifts to descend from platform 4 to platform 1, trigger a mechanism which releases your spacecraft and then complete the return journey.

Trouble is, that's it. This is the unexpanded Vic, so no more screens to go on

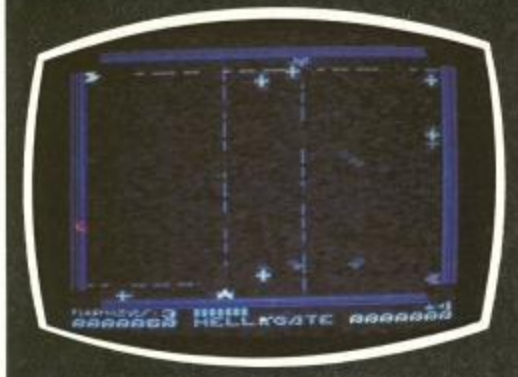


GAME: STAR DEFENCE
MACHINE: VIC 20 + 16K
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: ANIROG
PRICE: £7.95

Good versions of *Defender* on the Vic are few and far between, so this game is particularly welcome. The graphics are excellent: chunky, colourful and clear. All the usual *Defender* features are there in their frightening glory.

Least interesting graphica!ly are the humans you are trying to save from alien kidnap. They resemble nails rather than men. Purple nails at that.

However, all the other creatures are well up to the mark. The landers are the lowest form of alien life, green-eyed

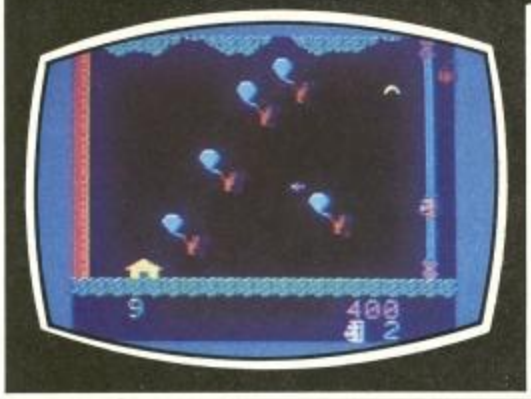


GAME: HELL GATE
MACHINE: VIC 20 8K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: LLAMASOFT
PRICE: N/A

Hell Gate is the latest offering from the pen of that renowned mutant camel, Jeff Minter, who isn't exactly noted for turning out duff games. But this one, well, I'm not too sure...

The presentation is superb. The titles literally explode on to the screen, and then pulsate with colour.

The trembling gamester stares at the display with bated breath as the program belts out the final warning: 'Prepare to Die...'. The screen is suddenly inundated with colour, sound, and flying



GAME: OUTBACK
MACHINE: VIC 20 UNEXPANDED
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: PARAMOUNT
PRICE: £5.50

A game with an Antipodean flavour. Nasty 'swagmen' are trying to abduct baby kangaroos. As the 'Boss Roo' you slide up and down the side of the screen shooting the swagmen as they float down in the balloons while 'Waltzing Matilda' plays. **PC**

GRAPHICS	6
SOUND	6
EASE OF USE	6
ORIGINALITY	5
LASTING INTEREST	5
OVERALL	5

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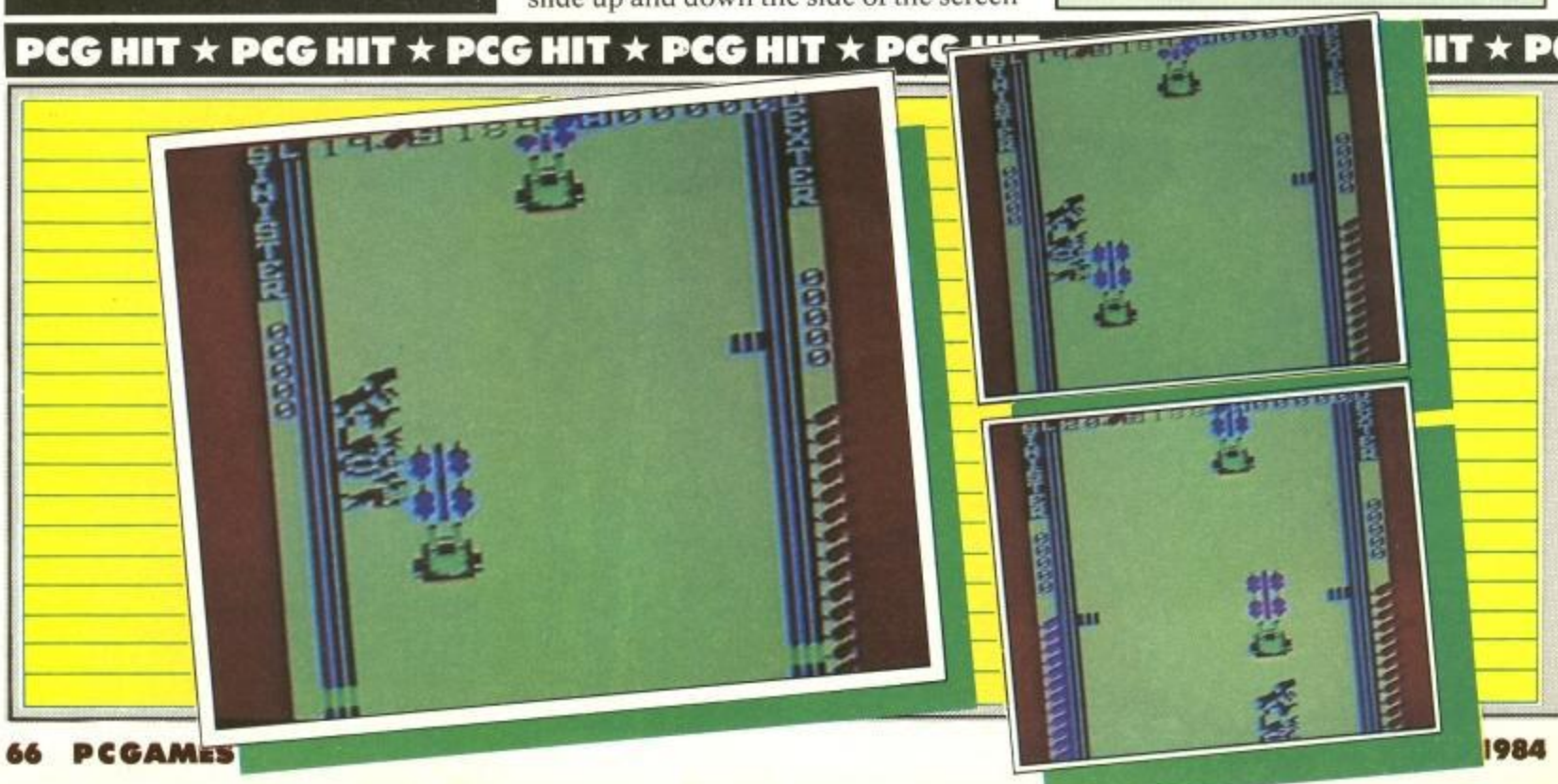

VIC 20 • VIC 20 • VIC 20

to when this one is mastered. Other drawbacks include jerky movement and the fact that if the shuttling spaceship is in a certain position when the game starts you can't avoid immediately losing one of your five lives.

On the other hand, it does feature some of the usual platform game appeal. With just three keys – left, right and jump – you can roam all over the screen. And it's great fun dodging into lifts and leaping successfull over stormtroopers – indeed if you time it right you land on top of them ... squelch.

Down at the bottom platform, excitement mounts briefly as you try to stand on an arrow which opens a trapdoor and allows you to free your trapped craft.

So Vic owners, you have a choice: either buy a memory expansion and get some really meaty games, or settle for a few hours of harmless entertainment on numbers such as this. **CA**

GRAPHICS	4
SOUND	5
EASE OF USE	8
ORIGINALITY	5
LASTING INTEREST	4
OVERALL	4

monsters who hover near the surface trying to abduct your men.

Should they be taken to the top of the screen the human victim will turn into a mutant and will chase after you. If all your men are stolen you will find yourself in the middle of a swarm of mutants. Very unpleasant indeed.

This is the time when you might like to use one of your three smart bombs, which destroy everything on screen.

The other main obstacles are the space-hums, large diamond-shaped things which move slowly and are easy to hit.

A useful feature of this version is the star-gate. If you move into this rectangle you're transported to a point where a human is being abducted.

The only real drawback to this game is that you must use the keys as well as the joystick: lives can be lost as you reach out for the return key to fire your smart bombs. **PC**

GRAPHICS	8
SOUND	NONE
EASE OF USE	6
ORIGINALITY	1
LASTING INTEREST	8
OVERALL	7

missiles. What the hell is going on??

The display consists of a large square, in the middle of which aliens of various shapes and sizes appear. You control four lazer bases, one situated on each side of the square. In each corner there's a gap, and the bases can't move from one side to another, but only from side to side (or up and down).

The bases are controlled as pairs – while one moves up (or left) its opposite number moves down (or right). When you fire, all the bases blast away simultaneously.

The idea, of course, is to blast the aliens before they reach the edge, whereupon they will bear down on your lasers and destroy them.

The action is blindingly fast, and the sound furious. The trouble is it's often impossible to tell what's going on. A fantastic looking game that will have your friends gawping, but not, perhaps, playing for very long. **SC**

GRAPHICS	8
SOUND	7
EASE OF USE	5
ORIGINALITY	6
LASTING INTEREST	6
OVERALL	6

GAME: JOGGER
MACHINE: VIC 20 UNEXPANDED
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: PARAMOUNT
PRICE: £5.50

Jogger rhymes with *Frogger* and that is what this game is. Instead of the usual slimy animal you have the fitness fantatic of the title. Obstacles are standard issue; traffic and hungry crocs. The graphics are good and there are some nice tunes. **PC**

GRAPHICS	7
SOUND	7
EASE OF USE	7
ORIGINALITY	0
LASTING INTEREST	3
OVERALL	5

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GAME: CHARIOT RACE
MACHINE: VIC 20 UNEXPANDED
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: MICRO-ANTICS
PRICE: N/A

'Quo Vadis, games-player?' I asked. 'To the Circus Maximus,' he replied, 'for the chariot races.'

A wise citizen, for this game, from a company I've not heard of before, is full of excitement and pleasure.

Chariot racing, as anyone who's seen 'Ben Hur' knows, is not so gentlemanly as motor racing. The object is not only to go as fast as possible, but also to smash as many of your opponents as you can.

In keeping with the game's classical setting the two players are sinister and dexter rather than left and right. Each controls a chariot which is seen from above. The team consists of four horses gnashing at their bits.

The players have simple controls for slow and fast, left and right. You try to draw level with a chariot and then force it into the buttresses which project from the walls at regular intervals. Alternatively, you can overtake and then try to back on to your opponent's horses. This is a very dangerous tactic and often backfires.

As if this were not difficult enough you also have to keep up a cracking pace. Go too slowly and irate plebs will start chucking fireballs on the track; these are deadly and almost impossible to avoid.

Chariot Race is a triumph of programming on the unexpanded Vic. When you see the superb graphics and hear the thundering hooves you will believe the manufacturers when they say that here is '4.7K of machine code squeezed into the unexpanded Vic.' **PC**

GRAPHICS	9
SOUND	8
EASE OF USE	8
ORIGINALITY	8
LASTING INTEREST	8
OVERALL	8

WILD WEST HERO

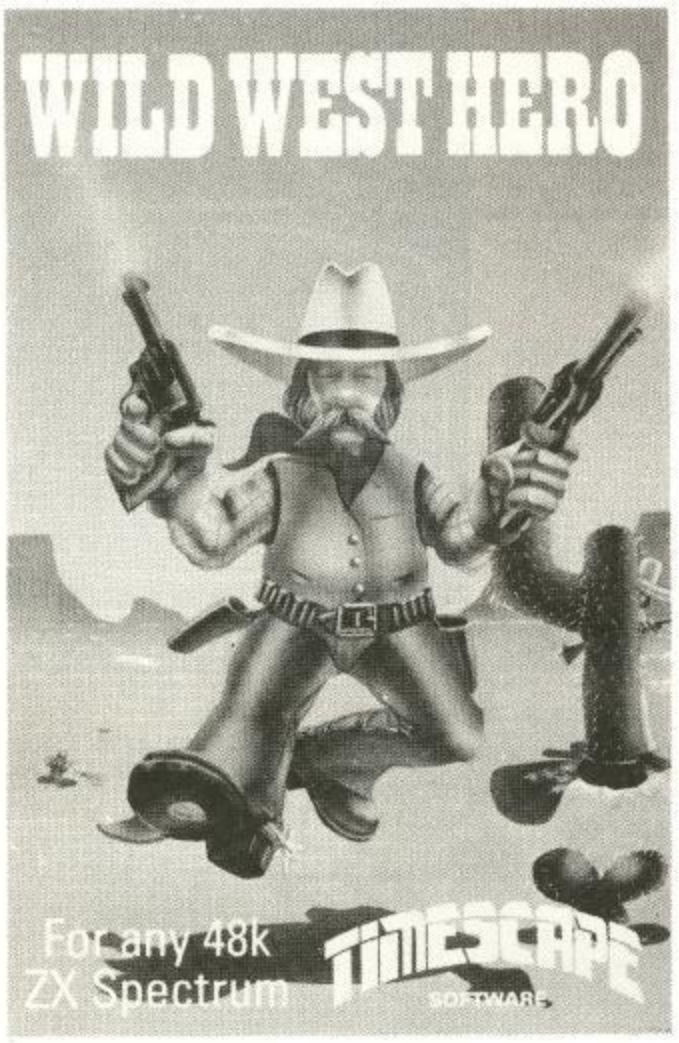
For the 48K Spectrum

An arcade game of fast action and skill, increasingly difficult waves of animated, smooth, hi-res bandits to be destroyed with auto-repeat firing. Includes high score, two player option, attract mode and is compatible, with the Kempston Joystick I/F.

"Very impressive graphics"
Tim Hartnell, best selling author.

"A blimmin' good mega zap" *Jeff Minter, top VIC 20 & CBM 64 games designer.*

"It is one of my top 20 all-time games" *– A. Takoushi, software journalist for many publishers.*



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DUSTMAN

For the 48K ZX Spectrum

New from Timescape Software is the crazy game called Dustman. Our friend Alf the Dustman is no ordinary dustman. He is a hyper-intelligent mega-dustman whose favourite lager is seeking revenge. Alf must fight back at the lager by throwing rubbish at the lager and other deadly enemies out to reduce him to the thickness of a bin liner. Alf's only hope is the perpetual littering of the enemy and help from 'Friends of the Binless' who help him achieve extra points.

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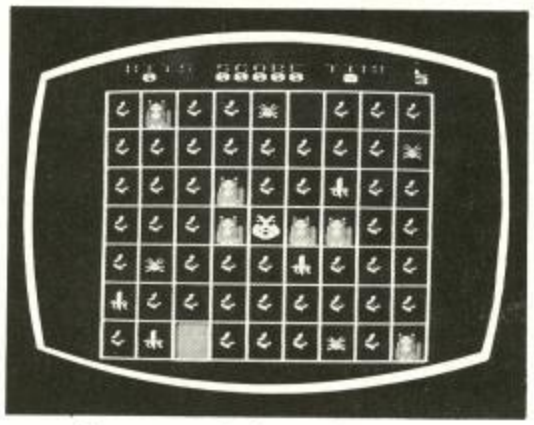
GAME: BANANA MAN
MACHINE: BBC
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: MRM
PRICE: £4.95

Banana Man is a grid game with a tropical flavour, even if your fruit are squashed in sandwiches.

As the Banana Man himself you must rush around and gobble at least 40 sandwiches in a minute. Extra points can be scored by consuming the occasional peeled banana or by attacking Ethel the Cat, a smug pussy which



sometimes materializes.

The game is played on a grid around whose squares you manoeuvre the Banana Man, a cheery character with a chubby yellow face. Opposition is provided by the pink spiders which appear when a peeled banana has been eaten. You must also avoid being enclosed by squares which have turned blue.

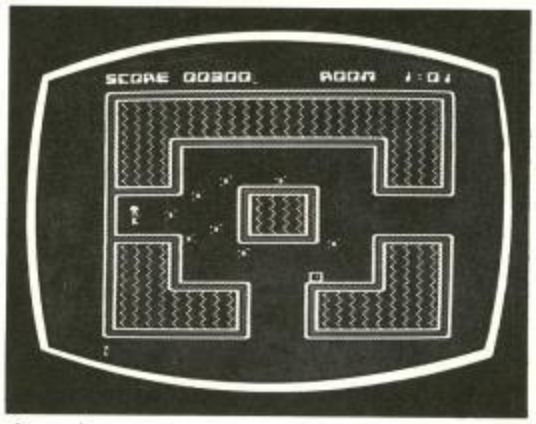
Banana Man's graphics are colourful and, although it won't set your pulse racing, it's good fun to play. **SNC**

GRAPHICS	7
SOUND	5
EASE OF USE	7
ORIGINALITY	6
LASTING INTEREST	5
OVERALL	6

GAME: CYBERTRON MISSION
MACHINE: BBC MODEL B
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: PROGRAM POWER
PRICE: £7.95

This is yet another of those games where you wander from room to room blasting robots.

The aim of the game varies according to which level you find yourself on. As you enter a level, the program sets you a task, which involves finding an object or objects and then finding a safe to put



them in.

There is a silent game option, and a pause key. The choice of control keys is sensible and doesn't hinder you as you blast Spinners, Clones, and Cyberdroids.

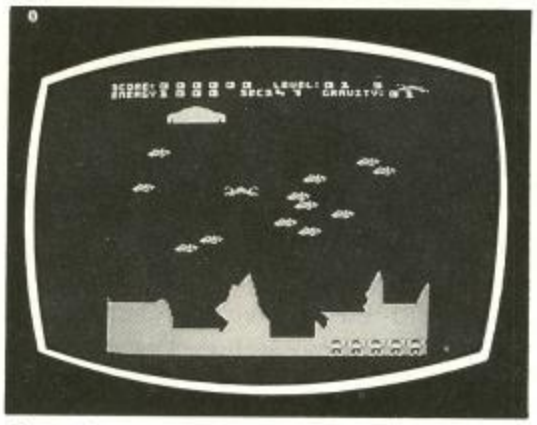
The graphics aren't wildly exciting, but the rooms are numerous and the robots obligingly suicidal. Addicted mega-zappers could do worse. **SC**

GRAPHICS	6
SOUND	5
EASE OF USE	6
ORIGINALITY	4
LASTING INTEREST	6
OVERALL	6

GAME: ZARM
MACHINE: BBC
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: PROGRAM POWER
PRICE: £7.95

The instructions for *Zarm* tell you that 'It is quite difficult at first to get used to controlling the craft'. This is something of an understatement – it's quite difficult all the time.

Your task is to pilot your Zarm craft to the surface of a planet and rescue the stranded astronauts. The trouble is that



there is a constant swarm of asteroids passing between the ship and the surface. You must weave left and right to avoid these obstacles at the same time as using your thrust to slow your descent.

Easier said than done. Even at the lowest level the asteroids are too numerous and the thrust too unresponsive. This is a pity since *Zarm* has very pleasant graphics and good sound. **PC**

GRAPHICS	7
SOUND	6
EASE OF USE	2
ORIGINALITY	6
LASTING INTEREST	5
OVERALL	5

GAME: THE PEN AND THE DARK
MACHINE: BBC MODEL B
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: MOSAIC PUBLISHING
PRICE: £9.95

This text adventure is the latest offering from the pen of Keith Campbell, a man so well-versed in adventuring that he reviews the products of his competitors for another (needless to say inferior) magazine. Does he practise what he preaches?

The program comes excellently documented, complete with paperback book containing instructions and a sci-fi story on which the game is based.

The book is essential reading for would-be adventurers, not just to set the scene but even, in one or two cases, to solve puzzles in the game.

Your task is to discover the nature of the 'Dark', an unnatural phenomenon that rises like a vast shadow from the surface of the planet Ithica.

The program is quite friendly, with adequate error-checking and a large vocabulary that nevertheless fails to recognise a number of common commands. Also there is no character interaction as in, say, *The Hobbit*. In fact, there are hardly any characters at all.

This is not an easy adventure, and success relies heavily on carrying out certain operations in the right order. This order is not always the most logical. There are one or two bugs to be avoided – trying to 'Load Trailer' for example, leads the program to expect an input from the cassette port. Apart from these drawbacks, the game makes for a few hours good adventuring – and the book's not bad either. **SC**

GRAPHICS	NONE
SOUND	NONE
EASE OF USE	6
ORIGINALITY	8
LASTING INTEREST	7
OVERALL	7

BBC • BBC • BBC • BBC •

GAME: CHALLENGER
MACHINE: BBC MODEL B
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: JOE THE LION
PRICE: £7.45

Challenger is a *Scramble-Defender* game that should give most BBC owners a good run for their money.

Flying your ship across the screen you have a reverse option (as in *Defender*) and must avoid rockets as they launch skywards (as in *Scramble*).

You have three lives, a laser cannon, shields, and an unlimited supply of bombs. Bombing fuel dumps tops up your tanks. If you run out of fuel you lose a life.

The game has many levels, distinguished mainly by the speed and ferocity of the opposition. The first level poses no threats apart from fuel starvation and easily avoided rockets.

At the higher levels nasty little creatures rise from the landscape below and take pot-shots at you. They move fast, and at this stage of the game I was acutely aware of the absence of a long-range radar scanner.

Even ignoring the pause and volume controls, no less than seven keys are needed to play the game. Under normal circumstances, with no joystick option,

GAME: ADVENTURELAND
MACHINE: BBC B
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: ADVENTURE INTERNATIONAL
PRICE: £7.95

The Scott Adams text adventures have been around in one form or another for a long time, but have only recently been made available for the BBC.

Adventureland is one of the first in the series, and probably the easiest to solve. It is text-only and makes little use of the Beeb's abilities, except in its use of colour to distinguish between input and response on the screen.

It has to be said that these 'classics' are beginning to show their age. The games come with the promise to show you 'what a skilled programmer can do with a micro', but unfortunately what a skilled programmer could do with a micro a few years ago wasn't really very much. If you're used to adventures like *The Hobbit* then these games, with their unchanging locations and few characters, may not be much to your fancy.

That said, *Adventureland* really isn't too bad. It has a reasonable vocabulary, a very fast response, and good error-

GAME: BIRDIE BARRAGE
MACHINE: BBC
JOYSTICK: NO
CATEGORY: SIMULATION
SUPPLIER: COMPUTASOLVE
PRICE: £7.95

You might think from the title that this is an exercise in getting splattered by flocks of pigeons. No such luck. It's just a golf simulation.

Golf is a difficult game to convert to a micro, and this version is a little unconvincing. At each hole you are presented with a bland picture depicting fairway, rough, water, bunkers and of course the green. You have to choose a club by typing in its number and then select the angle and power of the shot, taking into account the wind direction.

So far so good. But when you actually hit a key to play the shot, all you see is the ball moving to its new position and stopping. No little man swinging a club, no bounces, no cheering crowd.

You repeat the procedure until your ball arrives on the green whereupon the picture changes to a disappointing close-up view: just a green expanse with hole and ball marked.

Putting is purely a matter of selecting angle and strength of shot – there are no

GAME: LEMMING SYNDROME
MACHINE: BBC
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: DYNABYTE
PRICE: £7.95

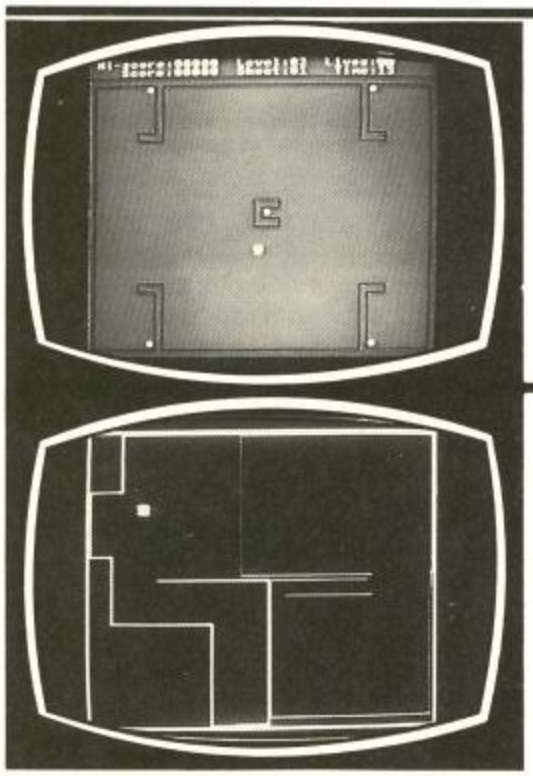
Lemmings are small furry creatures in Norway with a habit of following each other off the edge of cliffs to their collective doom.

In this clever game from Dynabyte the syndrome has been caught by human beings. They haven't gone bonkers – they're just terrified of being wiped out by Mad Marco, the Paranoid Programmer.

This crazy man, perhaps deranged by an unfavourable review, 'is on the rampage and has blown the suspension bridge to the mainland'. The choice is clear for the populace; either face M.M. or try to jump on one of the rafts in the shark-infested waters and escape.

The player has to guide the raft between the two cliffs in order to save as many of the people as possible. The raft acts like a trampoline, and you have to move it so that the cute boys and girls bounce across to safety.

This is easy enough when there is only one refugee, but can become pretty hairy



GAME: ZOMBIES REVENGE
MACHINE: BBC
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: ARROWSOFT
PRICE: £5.95

Collect the asterisks in the corners of the square while avoiding the 'zombies'. These creatures are merely black blobs, indicative of the waste of the BBC's graphics in this dull game. **PC**

GRAPHICS	2
SOUND	2
EASE OF USE	0
ORIGINALITY	5
LASTING INTEREST	1
OVERALL	2

GAME: LIGHT CYCLE
MACHINE: BBC
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: P.S.S.
PRICE: £6.95

One of those games where you have to guide a line around the screen, trying to avoid your opponent's 'cycle' while occupying as much territory as possible. The blurb says it's 'an adrenalin pumping game', but I remain unconvinced. **PC**

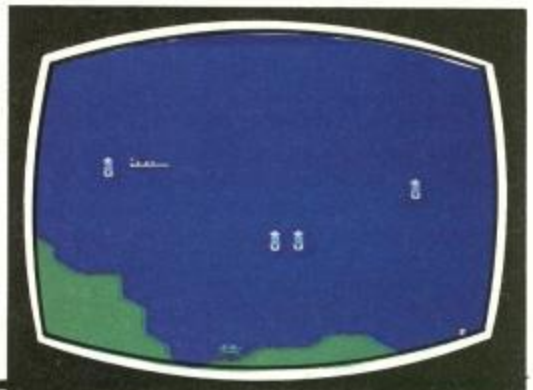
GRAPHICS	2
SOUND	2
EASE OF USE	6
ORIGINALITY	2
LASTING INTEREST	2
OVERALL	2

• BBC • BBC • BBC • BBC

this would present severe difficulties. However, not only do Joe the Lion offer you the opportunity to re-define your own keys, but you can also allocate more than one function to a key. Assigning the shield, bomb, and fire controls to the same key makes the game a positive joy to play.

There are some tricky caverns to be negotiated at the higher levels. The graphics aren't bad, though there is a tendency to flicker. *Challenger* is definitely one of the better games available on the Beeb. **SC**

GRAPHICS	6
SOUND	5
EASE OF USE	8
ORIGINALITY	4
LASTING INTEREST	8
OVERALL	7



checking.

The aim of the adventure is to explore a silent and largely deserted world for treasure. There are a number of puzzles to solve but the program is helpful and occasionally gives advice. Some of the locations are unusual and inventive (ever been in 'limbo' before?) and the game has enough wit and originality to make for a good few hours adventuring. Other games in the series include *Voodoo Castle* and *Secret Mission*. **SC**

GRAPHICS	NONE
SOUND	NONE
EASE OF USE	8
ORIGINALITY	6
LASTING INTEREST	7
OVERALL	7

slopes to take into account and no squatting down behind the ball to impress spectators.

The computer does of course keep a record of your number of shots and whether you're knocking in birdies or bogies. And with a little practice it's certainly possible to improve your scores dramatically.

Unfortunately the skills involved are in getting familiar with the program's responses rather than anything particularly to do with golf. **CA**

GRAPHICS	2
SOUND	1
EASE OF USE	7
ORIGINALITY	8
LASTING INTEREST	2
OVERALL	3

when there are two and downright frenetic with three.

To help, there is a choice of key controls; proportional or absolute. This means that you either use two keys to move the raft where you like or three to move it to pre-selected positions.

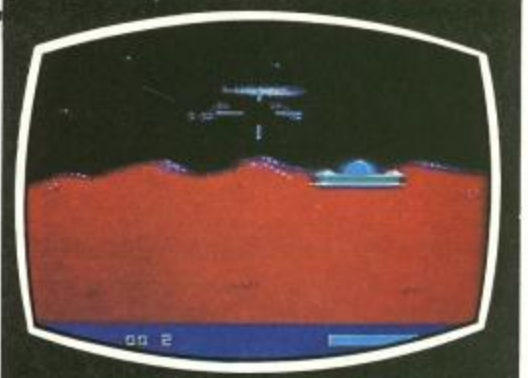
The graphics are very nice with lush green hills and deep blue water between the red land masses. But while the game is great fun to play it could become boring in the long run since the screen never changes. **PC**

GRAPHICS	8
SOUND	6
EASE OF USE	7
ORIGINALITY	7
LASTING INTEREST	5
OVERALL	7

GAME: MARTIAN ATTACK
MACHINE: BBC MODEL B
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: PROGRAM POWER
PRICE: £7.95

On a landscape of garish colour a city is under attack from above. Martians cross the screen dropping bombs. You fire at them. You are falling asleep ... you are falling asleep ... falling asleep ... **SC**

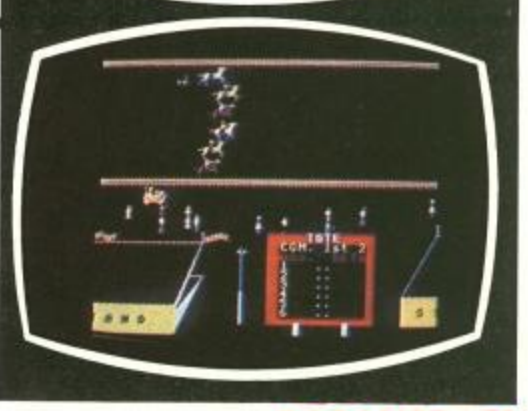
GRAPHICS	6
SOUND	5
EASE OF USE	5
ORIGINALITY	3
LASTING INTEREST	2
OVERALL	4



GAME: HORSERACE
MACHINE: BBC MODEL B
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: DYNABYTE
PRICE: £6.95

Up to six players start with £1000, bet on the form, and then watch the animals gallop across the screen. Good graphics, but winning money on the screen isn't quite the same as actually putting it in your pocket. **PC**

GRAPHICS	8
SOUND	7
EASE OF USE	8
ORIGINALITY	6
LASTING INTEREST	4
OVERALL	5



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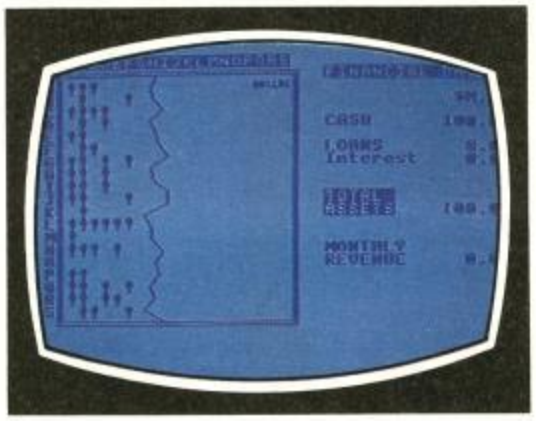
GAME: DALLAS
MACHINE: ELECTRON
JOYSTICK: NO
CATEGORY: STRATEGY
SUPPLIER: CCS
PRICE: £6.95



GRAPHICS	4
SOUND	NONE
EASE OF USE	7
ORIGINALITY	5
LASTING INTEREST	7
OVERALL	5

Readers may have heard of a TV series about the wheeling and dealing of oil-rich folk in Texas. This strategy game from CCS aims to give you the experience of big business in the Lone Star State without having to leave your armchair.

Your ambition is to take over the Ewing empire or to be taken over in the attempt. You have to do most of the things real oilmen do: make seismal surveys, bid for concessions, move the rigs and drill, lay pipelines and transport the black gold back to your refinery at Dallas.

The screen display is in two parts. On the left is a map showing the area in which concessions may be available. Above and to the left of the map are letters allowing you to enter the co-ordinates for drilling and purchasing. On the right of the screen is your financial data showing cash, loans and revenue.

The player begins with cash of $100 million and must accumulate $200 million in assets and $80 million in cash before he can make a bid for JR's shares.

Available concessions are signalled by a flashing cursor on the screen. The player makes a bid; something around $8 million usually gets you the rights. Unfortunately, you may not find any oil there.

The game doesn't seem to involve any real skill; it's largely a matter of luck whether you strike oil or not. My assets shrank very quickly. Now I'll never get Ewing Oil. Or Sue-Ellen. **PC**

GAME: ABYSS
MACHINE: BBC/ELECTRON
JOYSTICK: NO
CATEGORY: ARCADE ADVENTURE
SUPPLIER: CCS
PRICE: £6.95

GRAPHICS	3
SOUND	NONE
EASE OF USE	5
ORIGINALITY	4
LASTING INTEREST	2
OVERALL	3

Cases Computer Simulations chose the right name for this one, because it's really the pits. The game is a tedious mixture of adventure, arcade and puzzle.

Adventure element: 'Far away from here, in a hidden gorge through the Mountain of the Golden Lion, lies the Forgotten Abyss.' If only it were. Unfortunately, you have to fight your way through, destroying the 'many evil monsters that lurk in the shadows'.

You are presented with a grid: at each intersection you have to perform a task if you want to carry on.

Arcade element: a spider descends from the top of the screen. You have to shoot its body five times before you can go further. Or: a crude maze appears through which you must make your way before your oxygen runs out.

Puzzles: tedious feats of mental arithmetic must be performed, otherwise the ogre asking the questions will eat you. If he does the screen will display the message 'Chop, cut, slice'.

On your way between points, the message 'The bridge begins to creak' is printed with awesome regularity. 'Fortunately, it holds.' Well, it's a matter of opinion.

The trouble with programs like this is that they are neither one thing nor another. Nor even anything else. **PC**

GAME: AIRLINE
MACHINE: ELECTRON
JOYSTICK: NO
CATEGORY: STRATEGY
SUPPLIER: CCS
PRICE: £6.95

GRAPHICS	7
SOUND	NONE
EASE OF USE	6
ORIGINALITY	5
LASTING INTEREST	6
OVERALL	6

This is a strategy game inspired by the career of a well-known former airline tycoon. Your objective is to make enough money to take over British Airways. Why any normally greedy tycoon would want to take over BA is a mystery. The blurb asks you if you can 'be more successful than Sir Freddie.' From what I remember of his story, it shouldn't be difficult.

As the chairman of L-Air you begin with assets of £3 million and have seven years in which to increase them to £30 million and take over BA.

You are faced with some tricky decisions. Do you buy or charter your planes? What level of staffing or maintenance do you provide? What kind of insurance is best? If for example, you buy the wrong kind of insurance, you could find one of your planes hijacked and the company paying a ransom of £2 million from its own coffers.

The information to help you make these momentous decisions is contained in a number of well-presented charts and diagrams. But your skill, or lack of it, in interpreting this data doesn't seem to bear much relation to your position at the end of the game.

In my first year's trading I made a loss of £27,030 and, with remarkable similarity to Sir Freddie's own story, the receiver liquidated L-Air.

However, in my second year, although I was just as incompetent as in the first, I made a hefty profit. Luck, rather than judgement, is what makes a successful businessman in this simulation. **PC**

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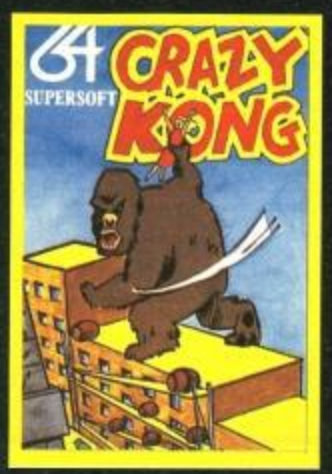

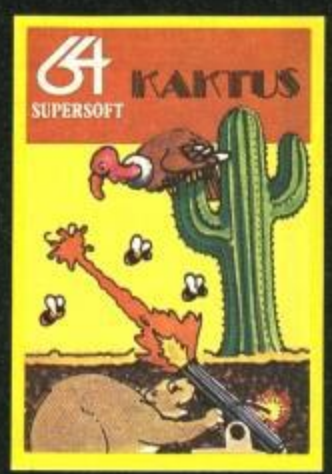

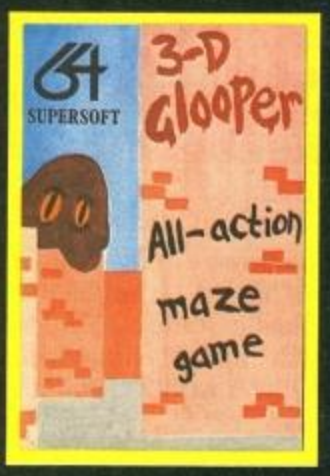

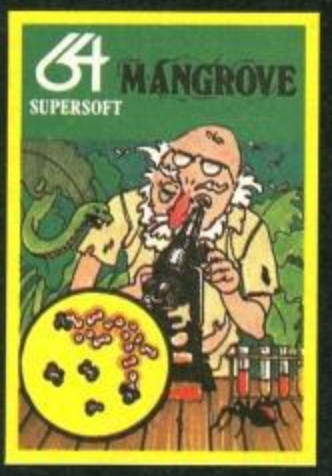

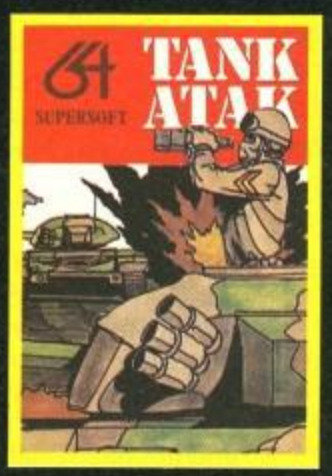

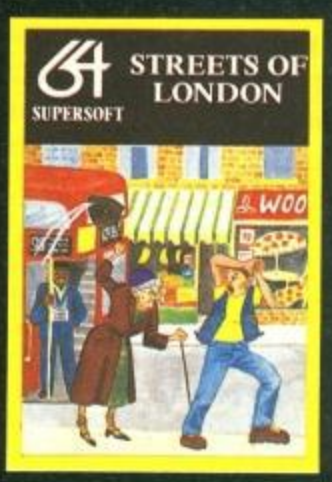

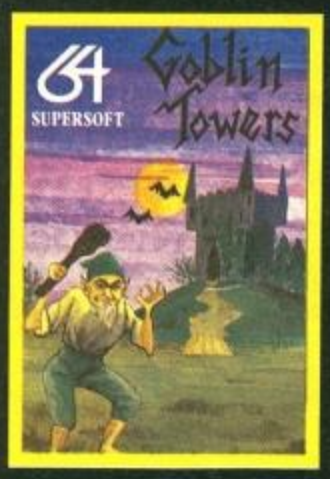

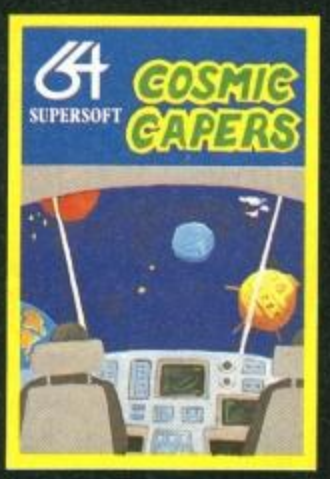

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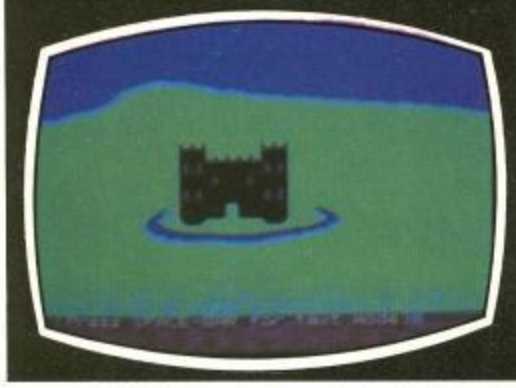
GAME: POO-YAN
MACHINE: CGL
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: CGL
PRICE: £23.95

Poo-Yan is a likeable little pig who travels up and down the side of the screen in a basket on the end of a rope. He's armed with a bow and arrows, and he's under attack from a pack of hungry wolves.

The wolves begin by running along the top of a cliff and then jumping off. They float to the ground hanging on to balloons, which Poo-Yan must pop with his arrows. The wolves then tumble to their deaths. While they're floating downwards, they pelt him with rocks.

If he doesn't get them, they start to



GAME: WAYDOR
MACHINE: ORIC 48K
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: IMS SOFTWARE
PRICE: £7.50

Waydor is a text-and-graphics adventure that offers the player the usual challenge of collecting treasure.

My copy of the game came without instructions, but the adventure is of standard format, and unless you're completely new to this sort of game you shouldn't have any difficulties.

The program has a somewhat limited vocabulary, but the error-checking is good, and tells you which word is causing difficulties.

There are eight treasures to be collected. My only complaint here is that

GAME: LOKI
MACHINE: ORIC
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: JOE THE LION
PRICE: £6.45

This is a 3D shoot-'em-up with eight attack waves, the first three at ground level and the last five in space.

And the reason for the strange name? Each wave is named after a Norse God: Odin, Frigg, Thor and so on. **PC**

GRAPHICS	6
SOUND	7
EASE OF USE	7
ORIGINALITY	5
LASTING INTEREST	5
OVERALL	6

GAME: STARSHIP
MACHINE: ORIC 48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: SECTOR 7
PRICE: £6.50

Standard shoot-'em-up with eight attack waves. The laser base won't move and fire at the same time, and the pace of the game is too slow to offer much excitement. Pleasantly large, above-average graphics, predictable sound, and not much else to say for it. **SC**

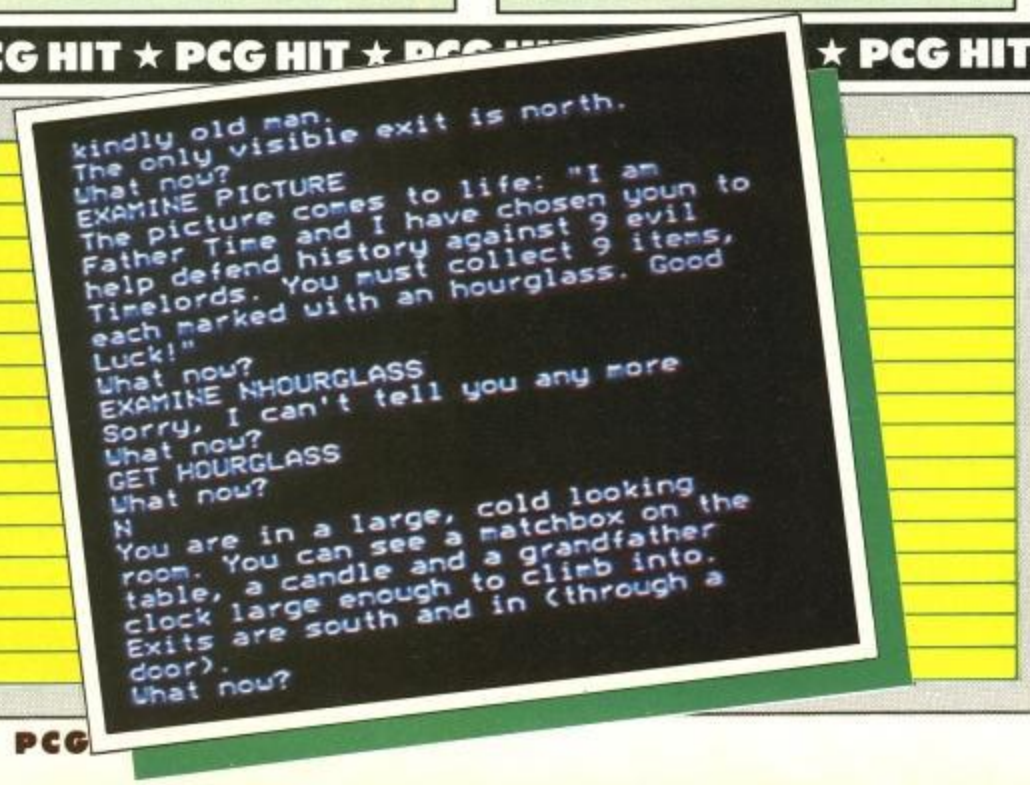
GRAPHICS	6
SOUND	3
EASE OF USE	7
ORIGINALITY	0
LASTING INTEREST	4
OVERALL	5

GAME: VANQUISHER
MACHINE: ORIC 48K
JOYSTICK: NO
CATEGORY: PUZZLE
SUPPLIER: ELEPHANT SOFTWARE
PRICE: £6.50

If you enjoy those annoying little games where you have to shuffle the letters round a plastic square to form words then you will enjoy playing *Vanquisher*. If you don't, you won't. Good for puzzle addicts only. **SC**

GRAPHICS	3
SOUND	5
EASE OF USE	5
ORIGINALITY	5
LASTING INTEREST	4
OVERALL	4

PCG HIT ★ PCG HIT ★ PCG ★ **PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG**



GAME: LORDS OF TIME
MACHINE: BBC B SPECTRUM 48K
COMMODORE 64
LYNX NASCOM
ORIC 48K ATARI 32K
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: LEVEL 9
PRICE: £9.90

Don't mess with me, chum, I've just killed a mammoth.

I did it this morning, after breakfast. Since then I've boarded Viking ships, fled from a Tyrannosaurus Rex, and been robbed in Ancient Rome.

I've picked flowers in an English country garden, battled with cavemen

• CGL • ORIC • CGL • ORIC

climb up the side of the screen where Poo-Yan is suspended, and will wait there till he passes them. They'll then snap at him, and if they get him he loses one of his three lives.

In later screens the wolves try running along the ground and then float upwards instead. If they reach the top, they then line up behind a boulder which they'll push down on the luckless pig.

To help him in his task, Poo-Yan is able to grab the occasional hunk of meat from the top of the screen and hurl it at the airborne wolves. If he gets his aim right he can bring down as many as five at once.

This is an enjoyable game with reasonable graphics and some catchy tunes. *Poo-Yan* won't have you on the edge of your seat, but I expect this is one pig who won't do too badly when it goes to the market. **SC**

GRAPHICS	6
SOUND	6
EASE OF USE	8
ORIGINALITY	7
LASTING INTEREST	6
OVERALL	6

some of them are too easy to find. One or two you can discover only by chance. Once found, the treasures have to be deposited in a particular location to qualify for a score. You have to find this location for yourself, but it isn't difficult.

One annoyance in playing *Waydor* is that the program doesn't accept abbreviated commands. To move anywhere you have to type 'Go West' and so on, rather than just the usual 'W'.

The lack of abbreviations is most annoying where the inventory command is concerned. The limit to how much you can carry is lower than in some games, and this means you have to use the Inventory quite frequently to decide what to drop.

Waydor isn't bad as far as adventures for the Oric are concerned. It isn't startlingly original, but the locations carry an unusually large number of objects so there's a lot of experimenting to do. An enjoyable challenge. **SC**

GRAPHICS	7
SOUND	NONE
EASE OF USE	7
ORIGINALITY	5
LASTING INTEREST	7
OVERALL	7

GAME: PARAGRAM
MACHINE: ORIC 48K
JOYSTICK: NO
CATEGORY: PUZZLE
SUPPLIER: ELEPHANT SOFTWARE
PRICE: £6.00

A sort of alphabetical Rubik's Cube would be one way to describe this game. Unfortunately that make Paragram sound like an interesting program, which it isn't.

Unattractive display, no confirmation of input, and poor use of sound make this a very avoidable game. **SC**

GRAPHICS	1
SOUND	1
EASE OF USE	6
ORIGINALITY	5
LASTING INTEREST	2
OVERALL	1

GAME: TWO-GUN TURTLE
MACHINE: ORIC 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: LOTHLORIEN
PRICE: £6.95

An engaging game with beautiful graphics. The turtle tries to defend his juicy strawberries against various hostile critters. If it snows your turtle could be in trouble.

Key control is difficult – those Oric cursors again; so get yourself a joystick if you want to play this witty game. **PC**

GRAPHICS	8
SOUND	6
EASE OF USE	1
ORIGINALITY	7
LASTING INTEREST	6
OVERALL	7

GAME: GALAXY 5
MACHINE: ORIC
JOYSTICK: NO
CATEGORY: COMPENDIUM
SUPPLIER: DURELL
PRICE: £6.95

Five games appear on this tape, only one of which I could get to load – and this after hours of trying.

This game was a version of *Galaxians* with all the signs of having been written in Basic. Other offerings on the tape are *Asteroids, Lunar Lander* and *Space-Chase.* **PC**

GRAPHICS	3
SOUND	3
EASE OF USE	2
ORIGINALITY	0
LASTING INTEREST	1
OVERALL	2

HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★

before the dawn of civilization, and climbed the Milky Way at its end.

I could go on and on. There are over 200 locations in this adventure, the latest from Level 9. As usual I have to take their word for it, I've been playing the game on and off for a week and haven't covered more than a hundred.

But it's not just the size of the game, it's the quality as well that is astonishing. These aren't your normal 'You're in a room. Exits lead West, East, and Down'-type locations, these are fully-described scenes to fire the imagination.

The aim of the game is to defeat the Timelords – a group of meddlesome baddies who get their kicks out of altering Earth's history. You can only win by collecting nine objects.

To achieve your aim, you will have to travel, via a vast grandfather clock, through eight periods of history ranging from the ice age to the furthest future. There is a ninth zone, but I wouldn't call it a time zone, exactly. If you want to find out more about it then you'd better go there, hadn't you?

The program has a very large vocabulary, but unfortunately it won't help you by telling you which words it doesn't understand. Unfamiliar words are greeted with responses ranging from 'Eh?' to 'Arfle Barfle Gloop'.

There is no HELP function, and if you get really stuck you'll have to write off to Level 9 for a clue.

Unusual commands include Left, Right, Forwards, and Backwards. You can repeat a command by typing AGAIN, and refer to an object previously mentioned by IT.

Lords of Time is well up to Level 9's usual high standard, and that means it belongs on your shelf. **SC**

GRAPHICS	NONE
SOUND	NONE
EASE OF USE	5
ORIGINALITY	9
LASTING INTEREST	9
OVERALL	8

GET THE RIGHT ANGLE ON YOUR SPECTRUM

Trickstick turns your Spectrum into the most sophisticated games machine in the world. Your fingers rest on the Trickstick's six sensitive pads (four directions and two fire buttons) and the harder you press the faster you go or the harder you turn.

Trickstick works by picking up mains hum from your body and converting it by an ingenious circuit design directly into digital input. Proportionality gives vast possibilities for more interesting games.

- ★ Each Trickstick comes with its own interface included in the price.
- ★ Up to eight interfaces can be stacked into each other for 1-8 simultaneous players. (Own 1-8 player game is Attaktics at £10).
- ★ Works with most Kempston compatible software, and with our new programmable adaptor (£10 for Trickstick owners) it works with ANY software.
- ★ Easy to program, even for proportional games.
- ★ In the shops soon. Now available by mail / telephone order at £34.50.

TRICKSTICK- The revolution that Runs Rings round ordinary joysticks

SP80

THE 80k SPECTRUM – £57.50

Upgrade your 16k Spectrum to a full 80k with the SP80 – a 64k expansion kit giving two 32k pages above address 32767. Not recommended for beginners, but ideal for the serious programmer. Pages are switched using software instructions only, and an LED indicates which page you are on. The other page is isolated from the system, but retains all its information until switched back.

The SP80 simply plugs into the sockets in the 16k Spectrum. Full fitting instructions are provided. It is easy to fit and no soldering is required.

See 48/80 FORTH for another angle.

48/80 FORTH

48/80 FORTH – £14.95

The latest, best and most complete version of this popular language for the Spectrum FORTH runs many times faster than machine code; – a tonic if you re fed up with all those GOTOs.

Each tape includes both a 48k version and an 80k version (for use on Spectrums upgraded with our SP80. SP48 owners are offered a part-exchange price of £18 if they upgrade to 80k).

The manual provides both the normal technical definitions of the language, and an outstanding brief introduction for the beginner. Each tape also includes a superb EDITOR program to give you full control of the 16 (48k) or 32 (80k) disk screens.

A FORTH Toolkit (giving floating point etc) and an extension for the Microdrive will be available shortly. 48/80 FORTH uses standard FIG-FORTH definitions with extensions to exploit the special characteristics of the Spectrum, including BEEP (for real arcade quality sound), DRAW, PLOT and CIRCLE.

BEYOND HORIZONS – £4.50

This teaching program has already made computing less mysterious for thousands of people. It guides you through the Spectrum 48k memory, teaches you to PEEK and POKE systems variables, shows you how the display file and colour attributes work, how a BASIC program is stored byte by byte, and much much more. Outstanding value for those who get stuck on the second half of the Spectrum manual.

SP48

UPGRADE YOUR ISSUE 2 OR 3 SPECTRUM FOR JUST £23 AND GET A £4.50 COPY OF BEYOND HORIZONS ABSOLUTELY FREE

The SP48 simply plugs into the sockets provided by Sinclair in your Spectrum. Easy to fit, full instructions provided and no soldering. Fits both Issue 2 and Issue 3 machines and gives you a standard 48k Spectrum. And no other expansion kit allows you to upgrade later to the 80k Spectrum. Over 20,000 16k Spectrum owners have already upgraded with the SP48. Join them.

And you get a free copy of BEYOND HORIZONS, so there's yet another angle to look at.

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EAST LONDON ROBOTICS

GAME: PI-EYED
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: SICK
SUPPLIER: AUTOMATA
PRICE: £6.00

If you're a juvenile delinquent who doesn't mind paying a fiver for a few feeble jokes about vomit and getting drunk this is the perfect program for you.

Before you load it up you can have the thrill of playing the 'musical' number on the reverse side of the tape complete with lavatorial lyric.

Then run the game and get Pi-Man to lurch from bar to bar, bouncing off the furniture and drinking all the pints in view.

The action is constantly interrupted by the laborious printing on screen of such things as Pi-Man's biological functions which every mindless yob will no doubt find hilarious.

Let's hope so, because the game itself is pathetic. Once he's been through the 'jokes', even the worst yob will hardly bother loading it twice.

To take just one example. Part of the game has Pi-Man running along a road trying to avoid traffic. The graphics here are abysmal and it's virtually impossible to control the character, so he's con-

GAME: MUTANT ANT ATTACK
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: CALISTO
PRICE: £5.95

Mutant Ant Attack is the perfect example of a great game almost ruined by a poor choice of movement keys.

Action takes place on a screen of intersecting lines along which march the so-called Mutant Ants. You control a tank which rotates and can move or fire in the direction in which it is pointing.

Unfortunately the keys chosen for this control are absolutely ludicrous. Try manoeuvring a small tank about the screen using '5' for rotate left, '6' to move, '7' to fire, and '8' to rotate right. Okay, so you can eventually get used to them, but if you've just forked out a fair sum for a game, you don't expect to have to waste your time on the controls when you could be developing your tactics instead.

This is a great pity, because *Mutant Ant Attack* would be a winner if it was more comfortable to play. The point is that every shot you fire goes off the edge

GAME: GOBSTOPPER
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: CALISTO
PRICE: £5.95

Gobstopper is a compulsive game with excellent graphics and sound.

There are three screens to survive as you help a small graphics shape by the name of Spodgo to demolish gobstoppers, avoid trains, and dodge lethal ice-cream cones. Unfortunately you have to control him using the Spectrum cursor keys, but as the game progresses he becomes quite nimble.

To begin with Spodgo finds himself on the screen surrounded by gobstoppers and killer toffees. In this game the sweets aren't just bad for your teeth, they're fatal. You have to despatch the gobstoppers with your gob-blaster by pressing the 0 key and avoid the toffees. An occasional snake wiggles across the screen, robbing you of one of your three lives if you happen to be in its way.

Once you've polished off all the gobstoppers, it's on to the next screen, where you have to manoeuvre Spodgo down the screen along narrow path-

GAME: CYBO RUN
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: CALISTO
PRICE: £5.95

Cybo Run is yet another *Robotron* variant for the Spectrum. Your time is spent blasting robots with your laser before they either blast or bump into you. Their touch is as lethal as their lasers, and costs you one of your three lives.

You enter the game in a room with a few randomly placed walls. These can be used to shield you from your friendly Cybo-neighbours, but just happen to have a few thousand volts running through them, so don't touch them either.

Once you've succeeded in blasting everything in sight, it's on to the next room, and a nastier species of robot. You have to be quick, though, as there's a time limit on your stay in each room, and if you don't get a move-on an invincible someone appears out of nowhere and kills you.

This version is not as fast as some, and would score highly were it not for some

PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★

GAME: ALCHEMIST
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE/ADVENTURE
SUPPLIER: IMAGINE
PRICE: £5.50

The Evil Warlock is terrorizing the land from his dread castle and you the greatest Alchemist on Earth have been sent to do battle with him in his own abode.

To defeat the warlock lord you must search through the numerous rooms looking for the four parts of the spell of destruction and then use it to kill him. In the halls and chambers you will find many objects and spells. These will help you fight off the guardians of the castle, but you can only carry one spell and one object at any one time.

So far the plot seems nothing unusual and could be exactly the same as dozens of other adventures on the market. But *Alchemist* is different because the action takes place as a standard arcade game.

You can move your man left and right, pick up and put down spells or objects and cast spells. When you need to move quickly you can transform yourself into a golden eagle which can fly.

But watch your energy and spell energy. Each time you move or cast a spell both of these will deplete and can only be replenished by resting and eating the food that you can find on your travels.

The graphics are excellent: you're chased by balls, brooms, butterflies, and skulls to name just a few. Getting past some of these can prove to be almost impossible without doing yourself some serious damage. Sound isn't exactly awe-inspiring but is good enough for the game itself.

If you've had enough of the text/picture type of adventure and you don't mind getting to grips with a few control keys then *Alchemist* may breathe some fresh air into your dungeon exploring.

SNC

GRAPHICS	9
SOUND	7
EASE OF USE	6
ORIGINALITY	7
LASTING INTEREST	9
OVERALL	8

SPECTRUM • SPECTRUM

stantly being hit by cars.

This would be wonderful if it meant the end of the game. But instead you get the same message printed on the screen letter by letter, time after time: 'You naughty Pi-Man, I'm going to have to take away ten points.' After a while this becomes so tedious it's unreal.

Automata claim to have a cult following for their trashy games. I can't believe this. Even delinquents must realize they can get better entertainment by perusing the wall of their local public toilet. **CA**

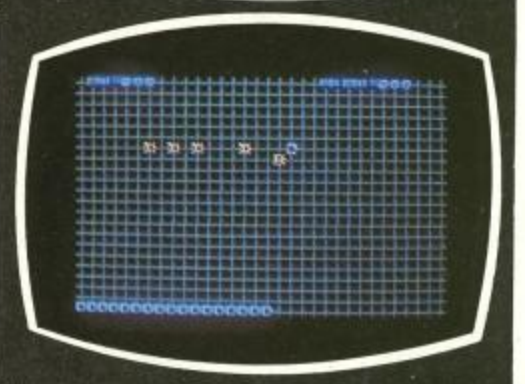
GRAPHICS	3
SOUND	2
EASE OF USE	3
ORIGINALITY	6
LASTING INTEREST	0
OVERALL	0

of the screen (if it doesn't hit anything) and re-enters from the opposite side.

It will continue on its course until it hits something. This means that you can have any number of shells in the air at once, picking off the ants as they make their way in resolute formation across the screen. And of course you have to keep dodging your own shells as well as the ants.

A simple but addictive game that will only give of its best to people with four hands. **SC**

GRAPHICS	5
SOUND	6
EASE OF USE	2
ORIGINALITY	6
LASTING INTEREST	7
OVERALL	5



ways, avoiding trains and randomly placed barriers.

Once you reach the bottom, you enter the next screen, where you have to dodge falling ice-cream cones. Your only objective in this screen is to stay alive for a pre-determined amount of time. You then find yourself back at the beginning of the game.

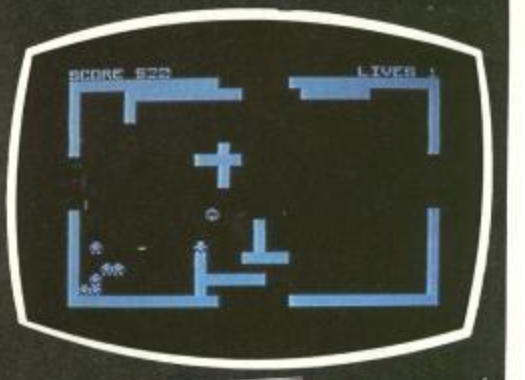
Although the first screen makes the rest of the game seem a little tame by comparison, *Gobstopper* should keep you happy between meals. **SC**

GRAPHICS	8
SOUND	7
EASE OF USE	6
ORIGINALITY	6
LASTING INTEREST	6
OVERALL	7

very annoying features. First, it uses the cursor keys for movement, so you really need a joystick for satisfying control. Second, it doesn't tell you how much time you have left in each room. Third, and most annoying of all, the program occasionally starts the game by positioning you right next to a robot, costing you a life before you've even begun.

Cybo Run scores well on playability, but Spectrum owners are spoilt for choice when it comes to games like this. Probably better to give it a miss. **PC**

GRAPHICS	6
SOUND	6
EASE OF USE	4
ORIGINALITY	1
LASTING INTEREST	6
OVERALL	5



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METAGALACTIC LLAMAS BATTLE AT THE EDGE OF TIME

A fast and original game for the unexpanded VIC. Challenging and colourful, with good sonics and a unique game action and design, this promises to be the most exciting new 3.5K VIC game since the introduction of GRIDRUNNER nearly a year ago.

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Available for Commodore 64 **£7.50**
and VIC-20 **£6.**

MATRIX

Jeff Minter has taken Gridrunner – the game that topped bestseller charts in USA and UK – and created an awesome sequel.

Graphically superb, it features multiple screens, new aliens and attack waves, mystery bonuses, renegade humanoids, deflexor fields, diagonal tracking, countdown/panic phase and much, much more... Packed into 20 mind-zapping zones and accompanied by incredible sonics.

8K expansion required.

Available for Commodore 64 **£7.50**
and VIC-20 **£6.**

HOVER BOVVER

A totally original arcade game for C64 featuring outstanding graphics and a sound track created by a professional Piano Wizard. Gordon Bennet has borrowed his neighbour's Air-Mo lawnmower. Mow your way through as many of the 16 lawns as you can before the pursuing neighbour retrieves his mower. Set your dog onto the neighbour to help you out of tight spots and don't annoy the gardener. Try not to plough through the neat flower beds or overheat your mower!

£7.50

ATTACK of the MUTANT CAMELS

Planet earth needs you! Hostile aliens have used genetic engineering to mutate camels from normally harmless beasts into 90 foot high, neutronium shielded, laser-spitting death camels!! Can you fly your tiny, manoeuvrable fighter over the mountainous landscape to weaken and destroy the camels before they invade the humans stronghold! You must withstand withering laser fire and alien UFOs. Game action stretches over 10 screen lengths and features superb scrolling, scanner 1/2 player actions and unbelievable animation! Play this game and you'll never be able to visit a zoo again without getting an itchy trigger finger! Awesome m/c action!

Available for
Commodore 64 **£7.50.**

REVENGE OF THE MUTANT CAMELS

At last the long awaited sequel to Attack of the Mutant Camels is available. You are controlling a ninety foot high, neutronium shielded, lazer spitting death camel; leading a rebellion against your evil Zzyaxian overlords. The game features beautiful smooth scrolling graphics and no less than 42 different attack waves, more than any game in video history. The challenge of play will last for months as you battle to see what's on the next wave.

GRIDRUNNER

Finally true arcade quality on the unexpanded VIC! Shoot down the segmented DROIDS invading the grid. Beware of the pods and zappers! The awesome speed, sound, and graphics gives you the best blast available for unexpanded VIC.

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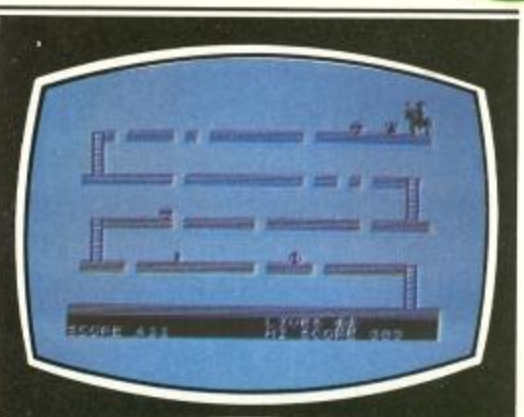
GAME: KILLER KNIGHT
MACHINE: SPECTRUM 48K
JOYSTICK: KEMPSTON OPTIONAL
CATEGORY: ARCADE
SUPPLIER: PHIPPS ASSOCIATES
PRICE: £5.95

Don't be fooled by the cassette cover. This is merely another version of *Kong*, and a lousy one at that. This time you have a knight rolling cannonballs.

The game's graphics, like the knight, appear to have come straight from the middle ages. **CA**

GRAPHICS	2
SOUND	4
EASE OF USE	4
ORIGINALITY	2
LASTING INTEREST	3
OVERALL	2



GAME: HAWKS
MACHINE: SPECTRUM 16/48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: LOTUS SOFT
PRICE: £5.50

Tedious *Galaxians*-type game in which you shoot down 'mutant birds' which are dropping 'eggs on parachutes'. Primitive, jerky graphics. You'd need to be a bird-brain to buy this one. **CA**

GRAPHICS	2
SOUND	4
EASE OF USE	5
ORIGINALITY	1
LASTING INTEREST	1
OVERALL	1

GAME: 2003
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: DK'TRONICS
PRICE: £4.95

The sub-title is 'A Space Oddity' but it's the game which is odd. You're supposed to be voyaging through space in search of treasure. But the program offers neither arcade action, nor adventure. **CA**

GRAPHICS	2
SOUND	3
EASE OF USE	4
ORIGINALITY	5
LASTING INTEREST	1
OVERALL	1

GAME: KOSMIK PIRATE
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: SIMULATION
SUPPLIER: ELEPHANT
PRICE: £5.65

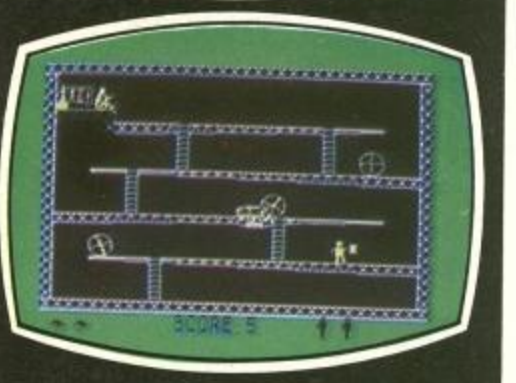
An attempt to simulate a spacecraft which is being used to attack other craft for booty. Program assaults you with numerous statistics, status reports and weak 3D effects. **PC**

GRAPHICS	3
SOUND	3
EASE OF USE	1
ORIGINALITY	5
LASTING INTEREST	3
OVERALL	2

GAME: MONKEY BIZNESS
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: ARTIC
PRICE: £5.95

A perfectly acceptable *Kong*. The graphics are not quite as interesting as in the versions by Blaby, Ocean and PSS, but to make up, you get seven different screens of action. **CA**

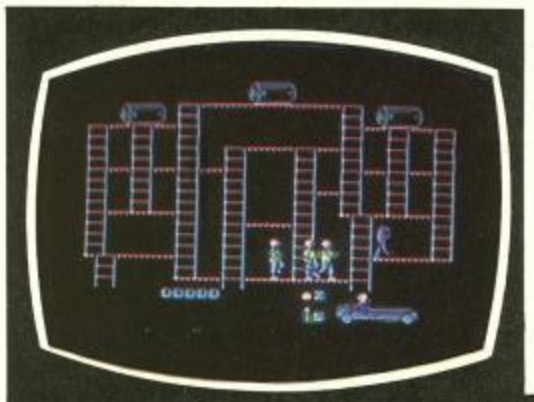
GRAPHICS	6
SOUND	4
EASE OF USE	6
ORIGINALITY	2
LASTING INTEREST	6
OVERALL	5



GAME: 3D SEIDAB ATTACK
MACHINE: SPECTRUM 16/48K
JOYSTICK: KEMPSTON OPTIONAL
CATEGORY: ARCADE
SUPPLIER: HEWSON CONSULTANTS
PRICE: £5.99

Yet another unimpressive attempt at 3D space action on the Spectrum. The buildings your craft is moving past are all identical and only look interesting when you're turning round corners. The attacking craft are indistinct and the action unexciting. **CA**

GRAPHICS	4
SOUND	3
EASE OF USE	5
ORIGINALITY	4
LASTING INTEREST	2
OVERALL	3



GAME: BEAR BOVVER
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ARTIC
PRICE: £6.95

From Artic comes this novel game in which a bear driving a car(!) appears at the bottom right of the screen. The car slowly draws to a halt, and the player takes command of Ted the Bear, who must climb around on various levels of scaffolding in an attempt to retrieve the batteries he needs to make his electric car (a subject dear to Sir Clive's heart) run.

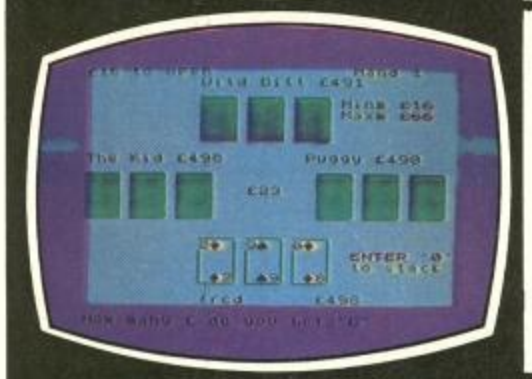
To make his task harder, he must keep out of the way of the Bovver Bears, who are out to thwart him.

His only weapon is his supply of time bombs, which may be set off in the paths

GAME: ROMMEL'S REVENGE
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: CRYSTAL
PRICE: £6.50

Crystal's greatest success to date has been the excellent *Hall of the Things.* With *Rommel's Revenge*, the company changes direction and, instead of a wholly original game, has produced a copy of the arcade favourite – you know, the one in which you blast away at tanks and all the effects are in wire-frame 3D.

The first surprise comes as the game loads – the familiar Sinclair blue and yellow stripes are conspicuous by their absence and instead the border alternates between blue and black as the title



GAME: BRAG
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: SIMULATION
SUPPLIER: T LEBON
PRICE: £6.00

OK, pardner, git them cards out and no tricky dealin', unnerstan'? You got 500 bucks which we're gonna take from you faster than you can say Dodge City.

Cut the accent, cut the pack, and start playing because this program offers ace entertainment for any budding smoke-room card-sharp.

Brag simulates a simplified version of poker. It's played by four people, three of whom are generated by the program and called The Kid, Wild Bill and Puggy.

Each player is dealt three cards and

GAME: DOOMSDAY CASTLE
MACHINE: SPECTRUM 48K
JOYSTICK: ANY OPTIONAL
CATEGORY: ARCADE
SUPPLIER: FANTASY
PRICE: £6.50

This is a direct follow-up to *Pyramid*, an excellent game in which you had to battle through a long succession of rooms each containing different aliens.

Doomsday Castle features the same hero Ziggy complete with his trusty shielded space module. And once again you have to make your way through many rooms and passages on a quest of daunting complexity.

You're searching for six ancient stones which you need to escape from the castle. They're located somewhere

GAME: MRS MOPP
MACHINE: SPECTRUM 48K
JOYSTICK: KEMPSTON OPTIONAL
CATEGORY: ARCADE
SUPPLIER: COMPUTASOLVE LTD
PRICE: £5.95

The arrival of this program offers mixed news to women's libbers. The good news is that it's written by a woman, Tina Billet. The bad news is that it features a harassed housewife trying to keep her kitchen tidy.

Forget the social implications, it's a great game: original, challenging and addictive.

Mrs Mopp's problem is that her beautiful kitchen is gradually being littered by dust and cups. She has to use a dustpan to pick up the dust and a

GAME: OLIGOPOLY
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: SIMULATION
SUPPLIER: CASES COMPUTER SIMULATIONS
PRICE: £6.00

A little number for aspiring capitalists. You're the managing director of a company whose assets you have to make grow with all the greed you can muster.

It's called *Oligopoly*, partly to rhyme with 'Monopoly' and partly because you're unlikely to get the market all to yourself. Certainly not with six people playing as is permitted by the program. (But you can also settle down alone with your Spectrum for a little private profit-taking.)

At the start of the game you are given a set of statistics about your firm. You are

of his attackers.

The batteries are retrieved simply by manoevring Ted so that he walks across the level on which each is sited; this causes the battery to drop to a lower level, and eventually the car may be manipulated so that the batteries fall into the back of it.

A nice feature in this game is the 'Baby Bear Mode', in which the player can get used to moving Ted around without having to deal with his attackers.

Artic has given users the choice of Sinclair, Kempston and Fuller joysticks in addition to simple keyboard control.

The graphics are very good and, for the first few games at least, *Bear Bovver* makes a refreshing change from the more usual type of arcade game.

My only reservation is how long the interest will be sustained; I suspect that after a few games the novelty will begin to wear off.

Still, this is definitely one of the more unusual Spectrum arcade-type games and certainly merits inspection. **SM**

GRAPHICS	7
SOUND	6
EASE OF USE	7
ORIGINALITY	8
LASTING INTEREST	5
OVERALL	7

---

screen loads.

Rommel's Revenge is compatible with Pro-Tek, Fuller, AGF and Kempston joysticks and the program senses which is attached and configures itself accordingly.

The 3D effects are well done, with distant objects growing in size and changing perspective with the viewpoint.

In addition to the optional keyboard movement control keys, there are keys to turn sound on and off, to quit the present game and to select or de-select the volcano and radar options.

When present, these slow the game down and thus are useful as an aid to familiarization with the controls.

I must confess that this is not my favourite type of game, but with *Rommel's Revenge* Crystal has produced a very fair copy of the original. **SM**

GRAPHICS	7
SOUND	6
EASE OF USE	7
ORIGINALITY	5
LASTING INTEREST	7
OVERALL	6

---

after assessing whether he has a good combination such as a flush or a run, bets a sum taken from his initial $500.

Bets are raised until three of the players have dropped out or until one of the last two remaining players demands that their hands be compared. Winner takes all.

There's plenty of opportunity for bluff, and the program itself indulges in this from time to time. Indeed on some levels it gives each of your three opponents a different propensity to bluff.

The game ends either when you've doubled your starting money or gone broke, most likely the latter.

Indeed the publishers of the game don't appear to be very rich since it comes with a home-produced paper cassette inlay. But don't let that, or the fact that it's written in Basic put you off.

It's an enjoyable program and you'll find that a win at *Brag* is worth boasting about. **CA**

GRAPHICS	2
SOUND	2
EASE OF USE	6
ORIGINALITY	9
LASTING INTEREST	7
OVERALL	7

---

in a huge labyrinth of 25 halls and 49 passages.

It would literally take hours to work your way right through the castle because you have to shoot your way out of each hall in a complicated way which requires destroying huge numbers of alien Urks as well.

But will you have the tenacity to keep at it? Unlike *Pyramid*, this game is not particularly compelling, because although there are plenty of different types of Urk, the action in each hall is basically the same.

But I must admit that the climax, if anyone ever gets there, sounds pretty exciting. Apparently anyone finding and entering the exit chamber with all six stones would spark off a chain reaction which leaves him just a few seconds to escape.

But I'm not prepared to invest several months in nondescript action for the sake of a few seconds thrill. **CA**

GRAPHICS	8
SOUND	6
EASE OF USE	6
ORIGINALITY	5
LASTING INTEREST	5
OVERALL	6

---

container to pick up the cups.

The trouble is she can only use one of these at a time, and after picking up ten objects, it needs emptying – in the dustbin or sink as appropriate.

What's worse is that after emptying a few containers the game moves to a higher level and shirts, glasses and other objects start appearing. Each needs a different container to be cleared up.

Very soon Mrs Mopp will find herself completely penned in, and her only means of escape is to cast a spell, of which she has a very limited number.

One final complication is that as time moves on Mrs Mopp becomes exhausted and you must refresh her by moving her to the drinks table. If you leave her there she becomes less tired, then fit, then happy, and finally drunk, a state which causes her to lurch around the screen uncontrollably.

I hate to admit it, but for once I really enjoyed doing the housework. **CA**

GRAPHICS	6
SOUND	4
EASE OF USE	8
ORIGINALITY	9
LASTING INTEREST	6
OVERALL	7

---

also given a forecast on expected demand in the coming year.

On this meagre basis you have to make a series of decisions: the price you'll charge for your product this year, how many you'll produce (too many and you incur overtime bills), how much to allocate to research, marketing and dividend payouts.

After the other players have done the same for their firms, the program shows what's happened to each firm's assets. This is followed by more detailed statistics revealing your gross and net profits and other titbits.

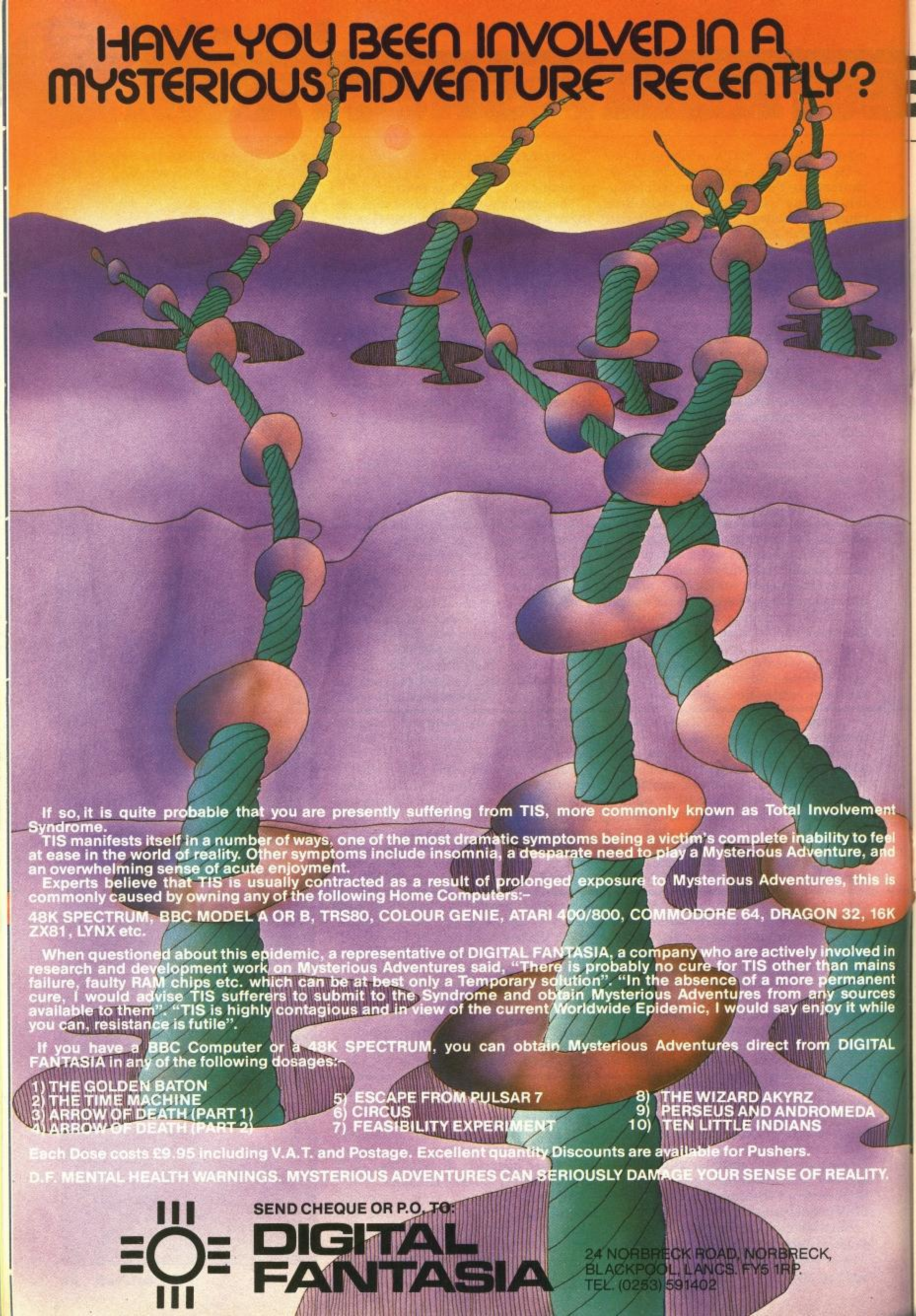
The big test of business simulations is: how realistic are they? A hard question to answer in this case, but I certainly didn't discover too many idiocies.

Put your price up, your marketing allocation down and your sales are likely to plummet. Undercut the other firms, and your product will sell well, but you may not cover your costs.

So if you want to run the rat race in the comfort of your own front room here's your chance. **CA**

GRAPHICS	1
SOUND	1
EASE OF USE	5
ORIGINALITY	6
LASTING INTEREST	6
OVERALL	5

HAVE YOU BEEN INVOLVED IN A MYSTERIOUS ADVENTURE RECENTLY?



If so, it is quite probable that you are presently suffering from TIS, more commonly known as Total Involvement Syndrome.

TIS manifests itself in a number of ways, one of the most dramatic symptoms being a victim's complete inability to feel at ease in the world of reality. Other symptoms include insomnia, a desparate need to play a Mysterious Adventure, and an overwhelming sense of acute enjoyment.

Experts believe that TIS is usually contracted as a result of prolonged exposure to Mysterious Adventures, this is commonly caused by owning any of the following Home Computers:–

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When questioned about this epidemic, a representative of DIGITAL FANTASIA, a company who are actively involved in research and development work on Mysterious Adventures said, "There is probably no cure for TIS other than mains failure, faulty RAM chips etc. which can be at best only a Temporary solution". "In the absence of a more permanent cure, I would advise TIS sufferers to submit to the Syndrome and obtain Mysterious Adventures from any sources available to them". "TIS is highly contagious and in view of the current Worldwide Epidemic, I would say enjoy it while you can, resistance is futile".

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PECTRUM • SPECTRUM

GAME: HERE COMES THE SUN
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: ALLIGATA
PRICE: £7.95

GRAPHICS	6
SOUND	3
EASE OF USE	7
ORIGINALITY	6
LASTING INTEREST	7
OVERALL	6

Here Comes The Sun is a text adventure with a few graphic screens and minimal sound in which your task is to take control of a space station and prevent it from colliding with the sun.

It's good to see someone taking enough care over a program to create their own character set, and the text is clearly presented.

There's a fairly large vocabulary, with most of the standard commands as well as some more unusual ones. The vocabulary is listed on the screen during loading.

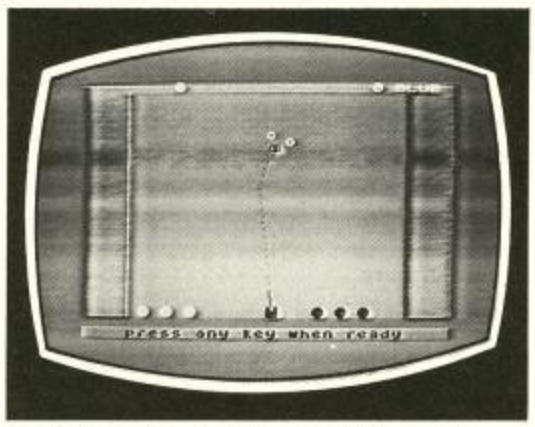
I have a number of quibbles with this game. The first is that a good deal of unnecessary effort has been put into providing witty diversions while playing. At various points during the game an aardvark eating an orchid crosses your path, and at other times the program resorts to Shakespearian English and Hobbit references.

Touches like these may amuse some people, but surely the effort would have been put to better use in adding relevant detail to the locations, most of which have very little to offer.

A number of drones and members of the ship's crew come and go, but none of them have much to do, and even less to say. From time to time one of the drones will cotton on to the fact that you are a stranger, at which point the game ends and you have to start again.

I can't help thinking that a little less quirky humour and a little more substance would have made this a better adventure. **SC**

GAME: BOWLS
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: SIMULATION
SUPPLIER: LOTUS SOFT
PRICE: N/A



GRAPHICS.	1
SOUND	2
EASE OF USE	6
ORIGINALITY	8
LASTING INTEREST	2
OVERALL	2

The release of this program raises the interesting question: are there any Spectrum owners who are actually interested in bowls?

I suppose there must be one or two, but I doubt whether even they will be all that interested in this program.

The trouble is the graphics. You're presented with a picture of the green with the Jack marked on it. Using this you set a pointer to indicate the direction of your shot, and a number to set the strength of it.

But then comes the disappointment. Instead of a lovely depiction of your bowl gently curving toward its final destination, its path is simply indicated by a dotted line.

And once more than a couple of bowls are in position it's impossible to make out whose bowls are where.

You do then get close-up views showing the positions more clearly. But you have to take the computer's word for it that all the collisions have been properly worked out – you don't get a chance to actually see these happening.

It's a two-player game, and after each 'end', the program announces which colour is the winner. This is just as well because, even the close-up view doesn't show the position of the bowls precisely, and after all that effort it would be a shame not to know. But this is a basic simulation written in Basic; and basically, I don't recommend it. **CA**

GAME: DENIS THROUGH THE DRINKING GLASS
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: APPLICATIONS
PRICE: N/A

GRAPHICS	NONE
SOUND	NONE
EASE OF USE	5
ORIGINALITY	8
LASTING INTEREST	4
OVERALL	5

You've read the Private Eye letters, you've seen the West End comedy, now play the adventure.

Yes, you guessed. This program takes the national pastime of lampooning the prime minister's husband to new depths.

Playing the part of Denis Thatcher, your mission is to escape from Number Ten Downing Street and reach a pub called the Gravediggers Arms.

As in all adventures you're in search of treasure while trying to avoid nasties. But in this game the treasure is drink of any kind, and the principal nasty appears to be Maggie herself.

Other characters in the game include Ian Paisley, the Pope, Dennis Skinner and members of the Royal Family whom the cassette label advises you to treat with care.

There are no graphics, but the text describes the different locations in alluring, humourous rhyme.

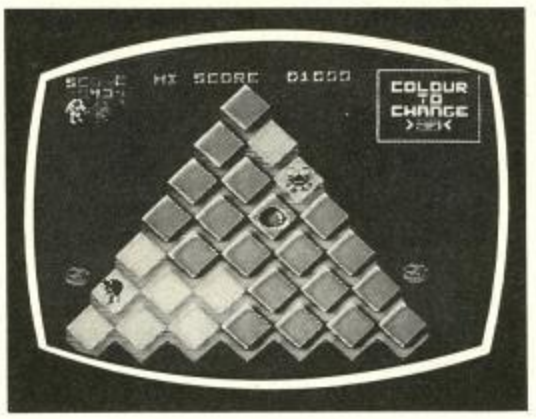
What happens to you can be fairly funny as well. If you find your way out of the front door, the game immediately ends your mission by displaying a headline on page 3 of the Sun, because although you didn't know it, you weren't wearing any clothes. Next time you put on a suit first.

My criticism is you can't just sit around experimenting with different commands, you actually have to keep making progress. And my prediction is that once the novelty wears off, the game itself is not all that wonderful. **CA**

Screen Test

SPECTRUM • SPECTR

GAME: PI-BALLED
MACHINE: SPECTRUM
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: AUTOMATA
PRICE: £6.00



GRAPHICS	9
SOUND	5
EASE OF USE	8
ORIGINALITY	2
LASTING INTEREST	8
OVERALL	8

If you've ever played that incredibly difficult game *Q*Bert* in the arcades and like me you found it much too difficult but actually liked the game, *Pi-Balled* is probably what you've been waiting for.

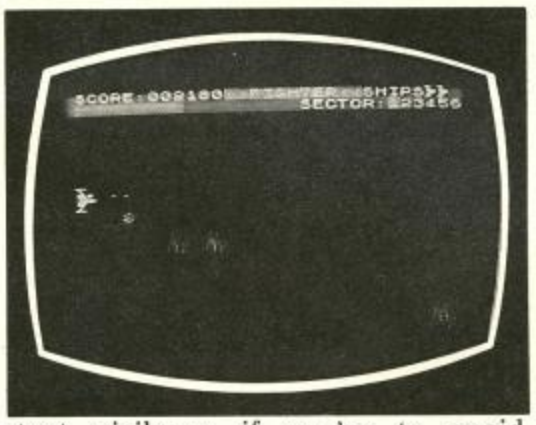
For anyone who doesn't know the scenario you have to help your man, in this case Burt, change the colour of a pyramid to the mystical colour displayed in the top right of the screen. The pyramid of Pi is made up of a number of blocks. You colour in a block by jumping on to it. Jumping is controlled by either the keys or Kempston joystick. But even though a joystick option is included the keys are well placed and I found it much easier to control Burt using these.

To make life difficult for Burt a number of nasties inhabit the pyramid, including the Piman, the Ball Brothers, Col, Jas and Sid the Snake. Each of the nasties have their own personality, some such as the snake being more difficult to avoid than others.

The graphics are excellent with some superb animation. When Burt gets on to one of the lifts to avoid a nasty he rotates slowly as he glides back up to the top of the pyramid and the movement of the nasties (and their intelligence) is truly frightening. It's a pity that the sound in *Pi-Balled* isn't a little better.

Pi-Balled is a good copy of the arcade version but a lot easier to play. Definitely a recommended buy for anyone who liked the original. **SNC**

GAME: CAVERN FIGHTER
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: BUG-BYTE
PRICE: N/A



GRAPHICS	9
SOUND	7
EASE OF USE	8
ORIGINALITY	1
LASTING INTEREST	8
OVERALL	8

This is a terrific rendering of *Scramble*, one which threatens to leave the other Spectrum versions smouldering on the launch-pad.

You can read all about the other games in the *Scramble* comparison on page 40, but right here is where the real action is.

Cavern Fighter features a frighteningly narrow cavern which requires constant vigilance if you're to avoid crashing into its twisting walls.

Movement is oh-so-smooth, and ah-so-fast. But you don't need a joystick. You can select your own control keys which means you can have a single key to fire your laser, drop bombs, and slow down.

So you can concentrate on obliterating everything that moves without tying your fingers in knots.

All the usual features are there: rockets, fuel dumps, phizzers, fireballs. Get in there and blast them. **CA**

GAME: DINKY DIGGER
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: POSTERN
PRICE: £6.95

GRAPHICS	6
SOUND	2
EASE OF USE	5
ORIGINALITY	4
LASTING INTEREST	1
OVERALL	2

The buffoon who wrote this program appears to be one of those people who believe that to make a game challenging it has to be virtually unplayable.

Just picture it. You're digging a tunnel and coming down it after you is a succession of monsters. Your only defence against them is to hurl a ball at them. That kills the first one, the rest keep coming, and you have to wait a few seconds for a new ball.

What often happens is that even if you're moving away as fast as possible, a second monster catches you up before your new ball arrives. So at best this game is a lottery, and worst it's mass murder of the defenceless.

The programmer had some other duff ideas: like including a really awful little tune which after your first few random deaths will make you tear your hair out.

Incidentally the aim of the game is to gobble cherries, apples and lime-cake but you'll find it all pretty fruitless. Even if you succeed you only get the same again, except even more unplayable.

The cassette inlay tells you that this game is as fast, furious and mean as they come. There is a certain truth in this.

The game is extremely mean, and if you buy it you'll fast become furious. **CA**

GAME: LOONY ZOO
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: PHIPPS ASSOCIATES
PRICE: £5.95

GRAPHICS	7
SOUND	3
EASE OF USE	8
ORIGINALITY	3
LASTING INTEREST	7
OVERALL	6

Take the classic Spectrum game *Manic Miner*, remove the collapsing platforms and conveyor belts, and cut the number of different screens from 20 to six. You're left with *Loony Zoo*.

Instead of picking your way through a mine, you have to escape through a series of cages in a zoo, each of which contains a number of carefully positioned platforms.

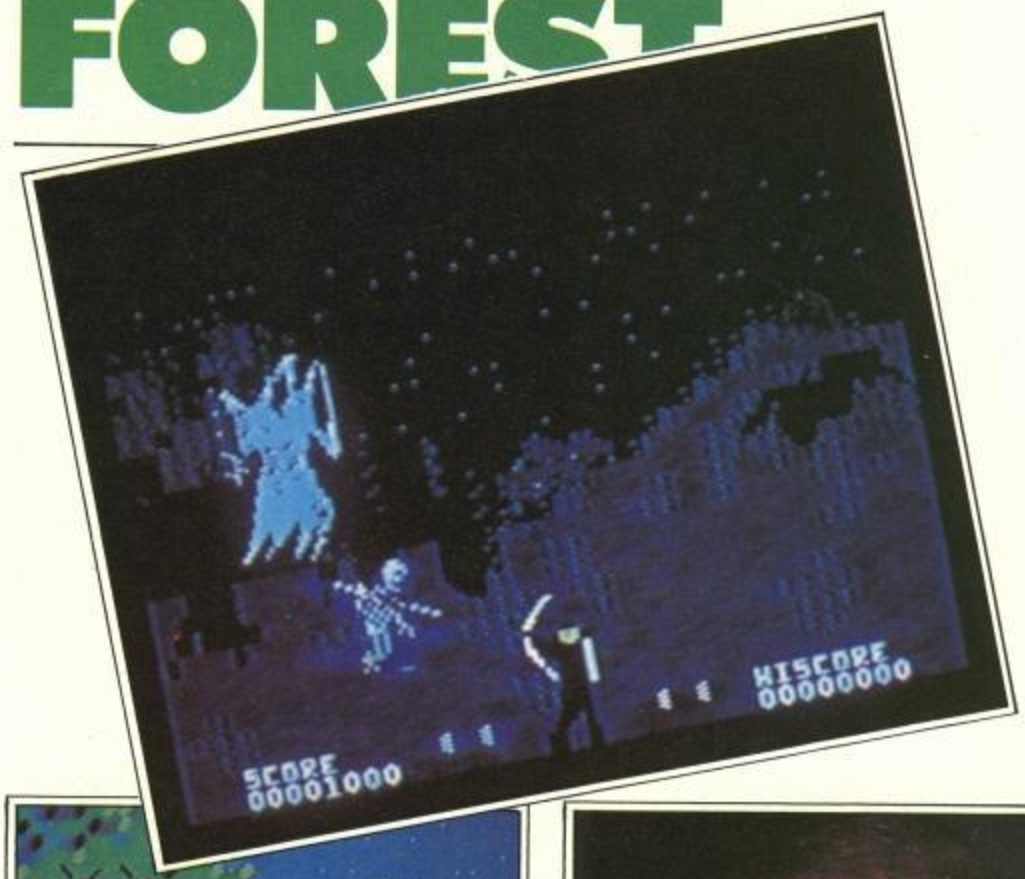
There are of course aliens to be avoided. And *Loony Zoo* does have one innovation in that as you near the end of your task in each cage, a different set of very nasty aliens is likely to home in.

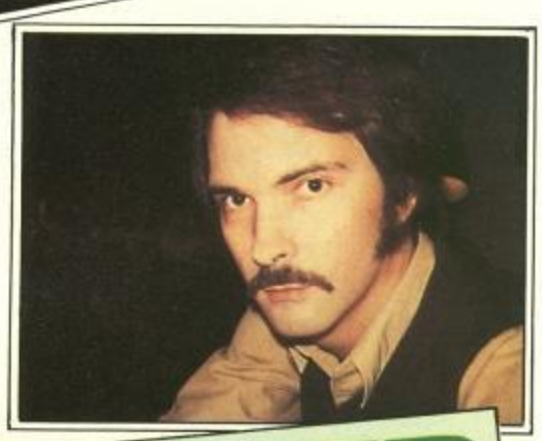
Loony Zoo is challenging and fun, but it doesn't represent nearly such good value for money as *Manic Miner*. **CA**

ONTH • GAME OF THE MONTH

GAME: FORBIDDEN FOREST
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: AUDIOGENICS
PRICE: £12.95 disc £8.95 cass.

FORBIDDEN FOREST





This game is not only terrifying, it's almost disgustingly realistic. Go out and buy it at once.

From the moment you load up, and haunting music ushers you into the forbidden forest, you realise Robin Hood was on to a cushy number.

It's not just Teddy Bears who picnic in the woods, you know. Giant spiders, bees, snakes and dragons are all on the look-out for a quick snack. That's you, of course.

Armed with your trusty long-bow, the only way to survive is to keep running and shoot everything on sight. If your aim isn't 100% then you end up chomped, burnt, stung, or squashed to death.

First there are the giant spiders, who rush out from behind the trees to pursue you through the forest. As you run, the scenery scrolls past you in impressive 3D.

Once you've dealt with the spiders, it's on to the giant bees – more difficult to hit, but mercifully less intelligent. If they don't sting you to death, then huge frogs descend from above and reduce you to pulp... Ugh!! That's not... blood... is it? Sure is. Never knew you had so much in you, did you?

As time passes, the moon slowly rises, and the skies darken, making your targets more difficult to hit. The atmosphere is tremendous, and each attack wave is accompanied by soul-chilling,

WEST COAST WONDER

What sort of man, having never seen a computer before, suddenly picks up a Vic 20, starts programming, and 12 months later begins churning out games like *Forbidden Forest* and *Aztec Challenge*?

That's Paul Norman for you. 'I spent a few years playing in bands, a few years writing, but I guess I was just naturally attracted to computers' he explains, his Californian drawl barely audible over British Telecom's transatlantic cable.

After playing around with the Vic and getting a job programming, someone suggested he write a game based on using a bow and arrow. A month later he went to work for Cosmi, and it was there that the idea for *Forbidden Forest* finally took shape.

It comes as something of a surprise that the man who has written one of the most exciting and original shoot-'em-ups on the market doesn't approve of shooting at all.

'The forest just seemed like the natural environment for the game,' he says, 'but I didn't want anything to do with real animals. Not shooting them anyway.'

Is he a vegetarian, then? 'No, no,' he hastens to add, 'I'm not a vegetarian. I just think animals deserve our respect.'

So do I, especially when they're 60 foot tall, tower over the trees, and spit fireballs at you.

Writing *Forbidden Forest* took him three months, and drew extensively on his musical experience as well as his programming expertise.

'I was always keen on movie soundtracks' he says, 'and I managed to use some of my old material from the early '70s. What appealed to me in the end was that it looked like a movie.'

After his success with *Forbidden Forest* and *Aztec Challenge*, Cosmi have given Paul carte blanche to design and produce his own games under their label. He's nearly finished a new blockbuster, set in an immense cavern.

'It's an Egyptian tomb game, and' he adds, 'there's a curse on the player throughout the game. It's incredibly difficult.'

At 32 Paul isn't exactly a whizz-kid, but anyone who can produce winners like *Forbidden Forest* after only a few months experience must be considered a shooting star.

Personal Computer GAMES

FORBIDDEN FOREST

BY

PAUL NORMAN

GAME OF THE MONTH APRIL 1984

blood-spilling music.

If you succeed in killing the spiders, the bees, and the frogs, you'll have to face the dragon. Ominous chords herald his approach as he swoops in across the trees for a twilight barbecue. At this point you don't actually smell the aroma of burning flesh, but watching the poor chap squirm in agony is bad enough.

The dragon is very difficult to hit, but if you do manage to get in a lucky shot, don't get too cocky. The next wave will have you spooked. Literally.

A vast spectre looms up in the distance. In the foreground skeletons rush through the trees with spears raised to skewer you. Don't they just love running you through, kicking their legs and smirking with delight as they perforate your struggling body.

Don't say I didn't warn you. This isn't a game for the faint-hearted.

The way to escape the skeletons is to get the spectre between the eyes. It's not easy, but if you succeed the next ordeal isn't quite as arduous, though no less impressive. A vast snake rears its head into the sky, spitting flame.

Any archer worth his salt can send the snake to Hades in double-quick time, but the chances are that he'll be following hot on his heels. The final threat of the Forbidden Forest is almost impossible to escape.

It seems that all the charming woodland creatures that have come to welcome you to their playground are the pets of the Demogorgon. Apparently killing them was something of a social faux-pas on your part, and their owner is a bit peeved.

The screen goes dark, there is a crack of lightning, and in the brief glimmer of light you can see something enormous towering over the forest.

That something is the Demogorgon. If you don't get him in 60 seconds, he comes for you. Then there's no escape...

The game has some nice touches, including the facility to continue from where you left off when you start a new game. This means you can work your way through all the attack waves without having to start again at the beginning each time you run out of lives.

You can adjust the trajectory of your arrows using sights at the side of the screen, though these are difficult to see once night has fallen.

The action takes place to some great music. Add to that the rising and setting of the moon, and the lengthening shadows of twilight, and I think you'll agree that the atmosphere of this game is almost unbeatable.

So there you have it. One day in the Forbidden Forest, ten years off your life and a few white hairs into the bargain. Stop fooling around with aliens and get on down to the woods today. **SC**

GRAPHICS	9
SOUND	9
EASE OF USE	7
ORIGINALITY	10
LASTING INTEREST	9
OVERALL	9

Nightfall. Five fearsome moments in the forest. 1) Taking aim at the attacking spider. 2) Savaged! 3) A giant bee homes in. 4) A huge snake towers overhead. 5) Shoot the glowing spectre or be speared by skeletons

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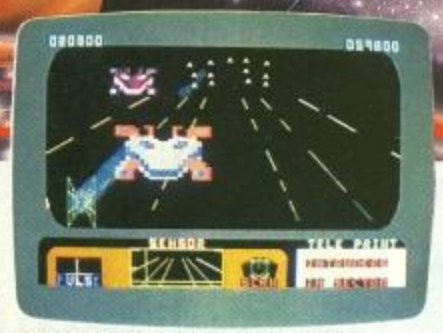

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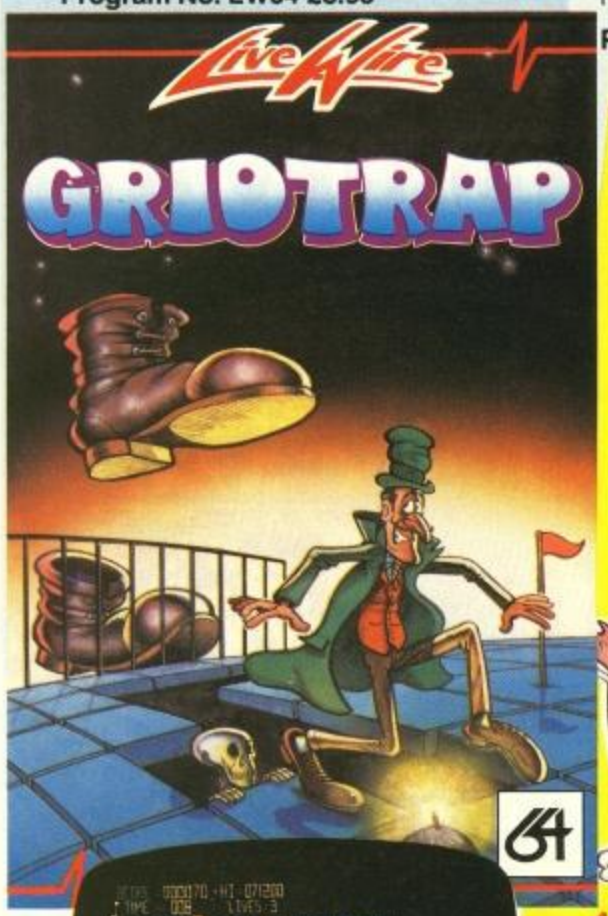

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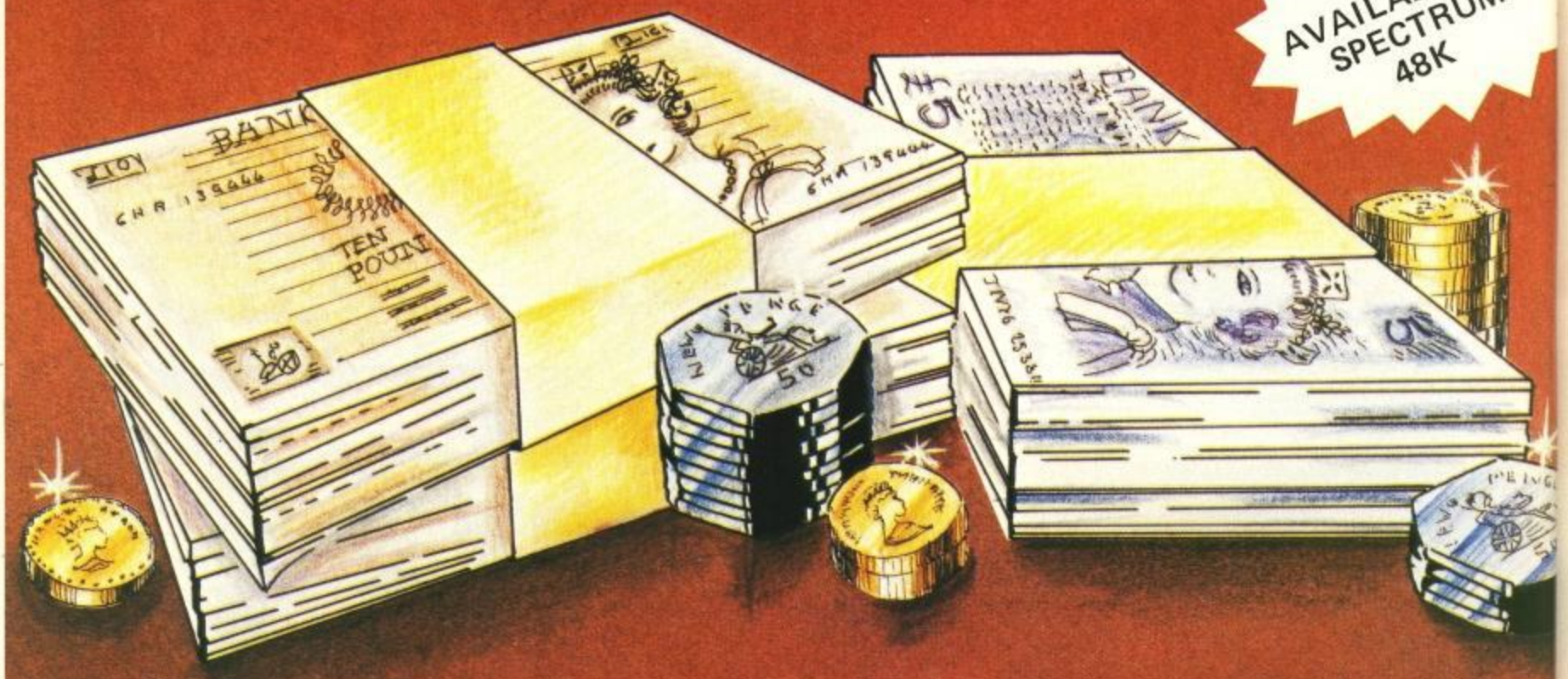

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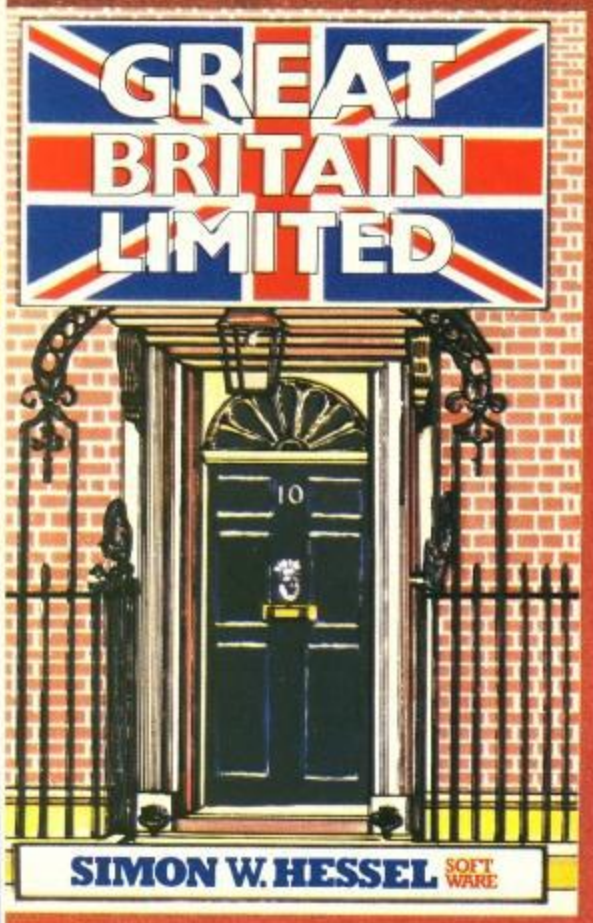

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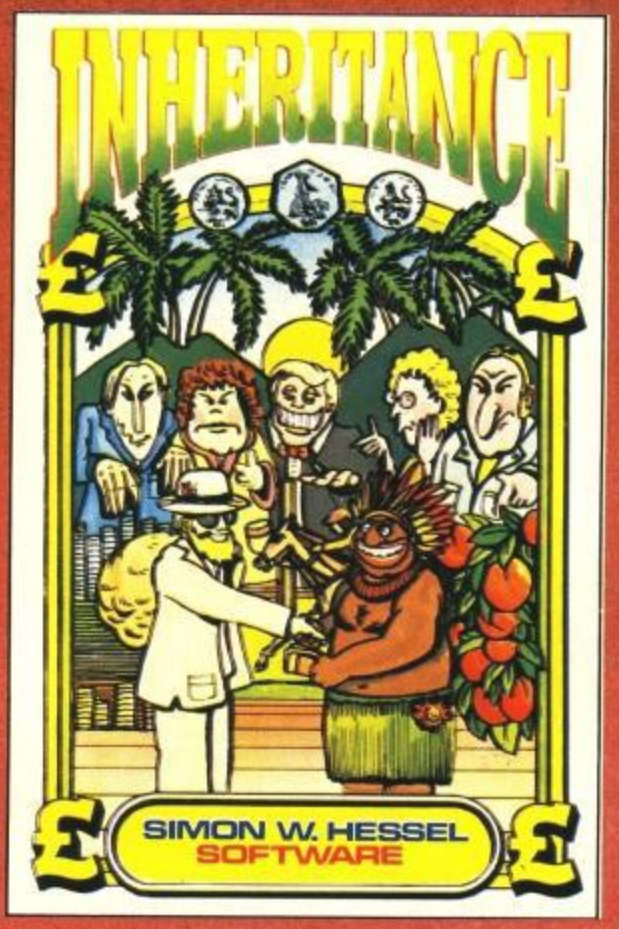

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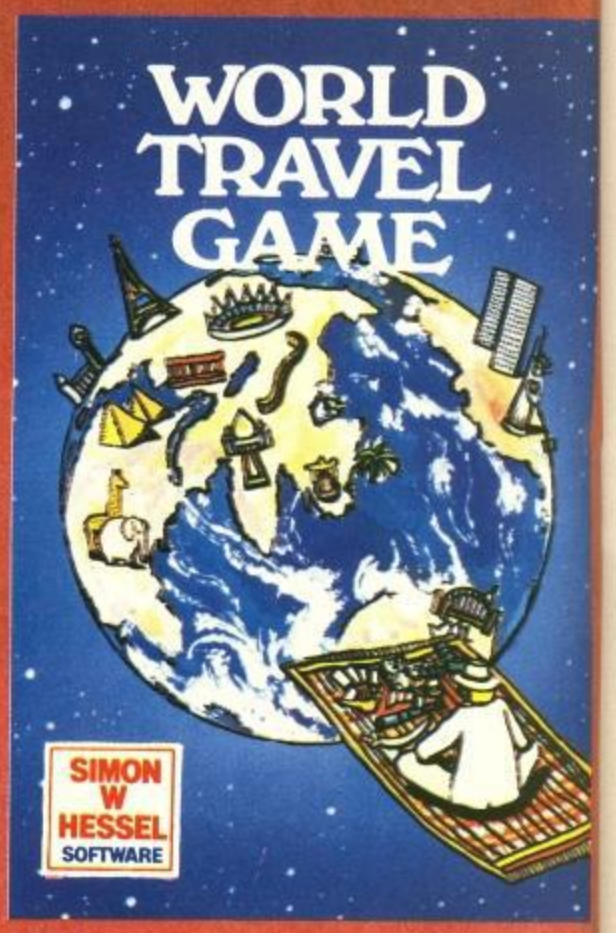

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BBC 32K

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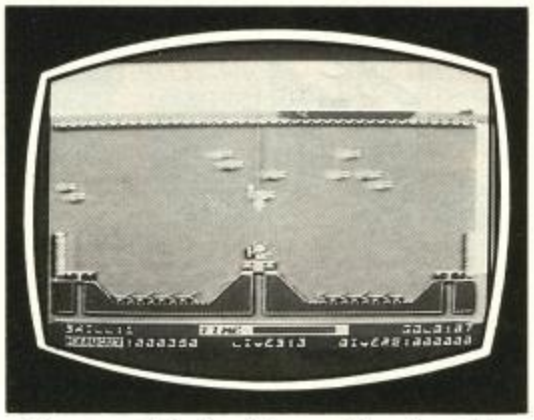
GAME: CAPTAIN STICKY'S GOLD
MACHINE: ATARI 400,000, XL
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: ENGLISH SOFTWARE
PRICE: £9.95

Captain Sticky's Gold has a profoundly silly scenario: 'As Captain Sticky's new crew member you are responsible for the maintenance of his diving suit. The Captain's supply of gum has dwindled and now he must replenish his supply of stickies (gum, that is!)'.

Well, yes. But don't let it put you off too much, because it's really quite a good little game.



From a ship floating on the deep blue briny you are lowered to the sea bed in order to collect the gold bars which pop out of three holes. You must then take them back to the ship so that Captain S can indulge his gum habit.

GRAPHICS	7
SOUND	6
EASE OF USE	6
ORIGINALITY	8
LASTING INTEREST	7
OVERALL	7

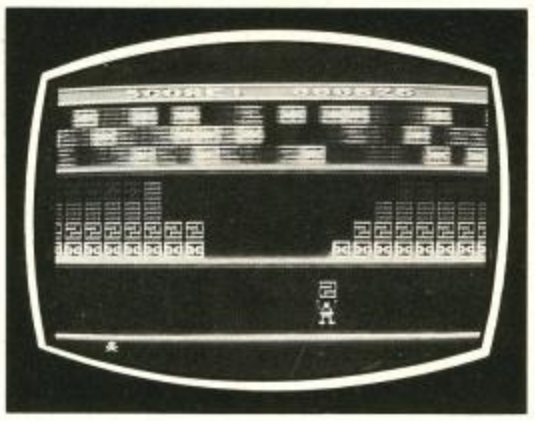
Naturally, there are problems. The sea is full of fish which you have to avoid or harpoon. Nastier is the Air Leech which squiggles around and sucks your vital air supply. On higher levels there are monster crabs, missiles and force-fields.

Sound is jauntily nautical and the graphics are amusing. Despite the silliness it's fun to play. **PC**

GAME: BATTY BUILDER
MACHINE: ATARI 400,800,XL
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: ENGLISH SOFTWARE CO.
PRICE: £9.95

Man's aim is surely to create rather than to destroy; to see new monuments to his ingenuity and effort arise where once there were emptiness and waste.

Sermon over. But if you want to try your hand at some construction instead of the usual destruction, in a game with a touch of the zany, you could do worse than cast an eye over *Batty Builders.*



At the top of the screen is a moving row of white and yellow bricks. As these come tumbling down you must position your man to catch them. When you get underneath you press the fire button to catch them, then release the button to position them on a lower level.

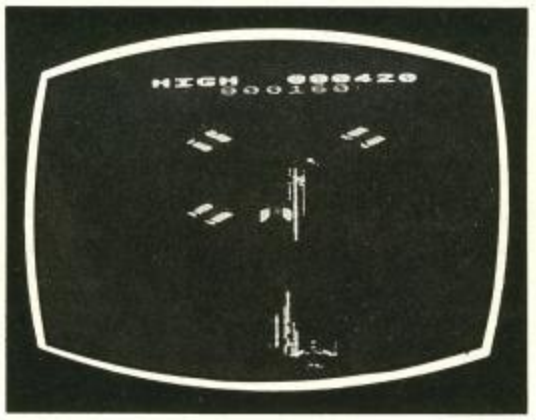
GRAPHICS	7
SOUND	5
EASE OF USE	7
ORIGINALITY	7
LASTING INTEREST	6
OVERALL	6

More points are scored for walls of one colour, and on the higher levels there are hazards such as TNT to overcome as well as the bricks. A simple game but enormous fun. **PC**

GAME: HYPERBLAST!
MACHINE: ATARI
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: ENGLISH SOFTWARE
PRICE: £9.95

There's a kind of permanent pleasure about playing *Galaxians* which seems to outlast the changes in games fashions. It satisfies a deep need to enjoy a good long bout of destruction.

The game features ten different attack waves of aliens, all clearly distinguishable because of the very good colourful graphics. Each wave appears from the



centre of the screen in a starburst of colour. They then peel off in all directions before swooping down to bother your ship at the bottom of the screen.

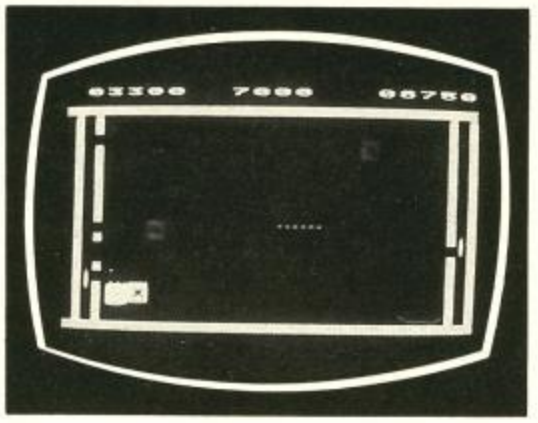
GRAPHICS	7
SOUND	7
EASE OF USE	6
ORIGINALITY	5
LASTING INTEREST	6
OVERALL	7

I particularly liked wave 9, the Zoomerangs, who whirl around emitting shrill bird-like noises. Another nice point is the upward scroll between waves so you zoom through space before meeting your next opponents.

Hyperblast! should greatly satisfy most *Galaxians* fans. **PC**

GAME: BOMBASTIC
MACHINE: ATARI 400, 800, XL
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: ENGLISH SOFTWARE
PRICE: £9.95

This game is a sophisticated version of ping-pong, with anti-matter bombs instead of balls. Using the joystick you have to propel the bombs away from



your end and try to destroy the opponent's. A simple idea which has been well-executed. **PC**

GRAPHICS	6
SOUND	5
EASE OF USE	7
ORIGINALITY	5
LASTING INTEREST	5
OVERALL	6

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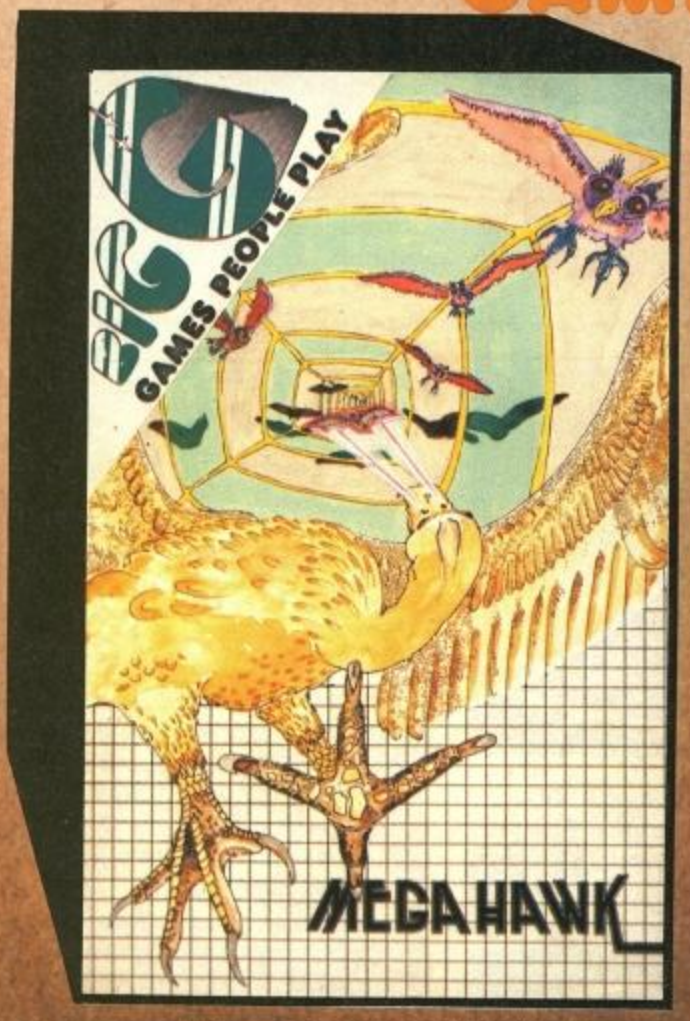

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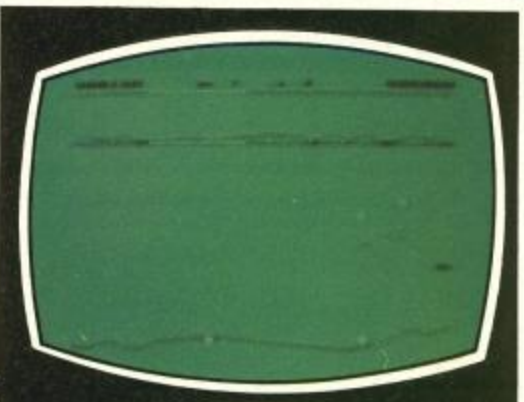
GAME: PROTECTOR
MACHINE: DRAGON 32
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: ALGRAY
PRICE: £8.95

This version of *Defender* has all the usual features and is an enjoyable game.

The graphics are colourful and chunky, with a good variety of aliens. It is, though, a bit slow and the screen does not scroll very well. **PC**

GRAPHICS	6
SOUND	5
EASE OF USE	5
ORIGINALITY	0
LASTING INTEREST	6
OVERALL	5

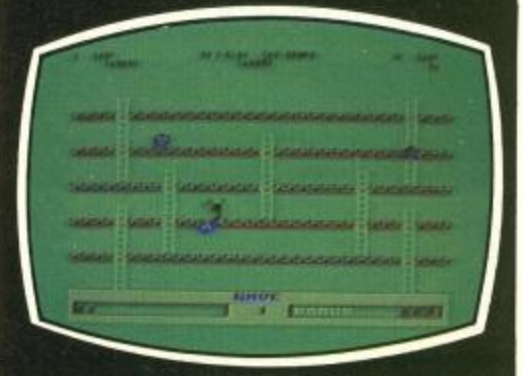


GAME: ALBERT AND THE MONSTERS
MACHINE: DRAGON 32
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: ALGRAY
PRICE: £8.95

Another *Kong*-type game. Albert runs up and down the ladders on five 'stories' and you have to try to get rid of the monsters by digging holes for them.

Not one of the ladder game greats. **TH**

GRAPHICS	6
SOUND	6
EASE OF USE	5
ORIGINALITY	5
LASTING INTEREST	4
OVERALL	5



GAME: CYCLOPS
MACHINE: DRAGON 32
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ROMIK
PRICE: £9.99

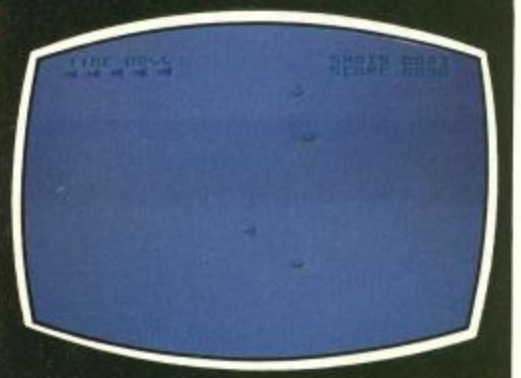
A very good variation on the *Pac-Man* theme featuring one-eyed monsters. You have a choice of whether the cyclops is intelligent or not, plus other variations of the game. **SNC**

GRAPHICS	7
SOUND	6
EASE OF USE	8
ORIGINALITY	5
LASTING INTEREST	6
OVERALL	6

GAME: AVENGER
MACHINE: DRAGON 32
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: VOYAGER SOFTWARE
PRICE: N/A

You control a dot-sized ship and have to ward off attacks from waves of enemy dots. The conception's good but the execution's poor. **TH**

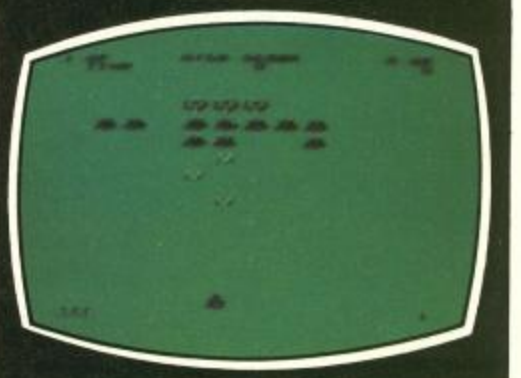
GRAPHICS	3
SOUND	4
EASE OF USE	8
ORIGINALITY	5
LASTING INTEREST	3
OVERALL	3



GAME: GALACTIC RAIDERS
MACHINE: DRAGON 32
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ALGRAY
PRICE: £8.95

One more *Galaxian* re-run. This time in slow motion. The graphics are a right yawn. A 'lethality' (sic) ratio measures shots fired against your kill rate. **TH**

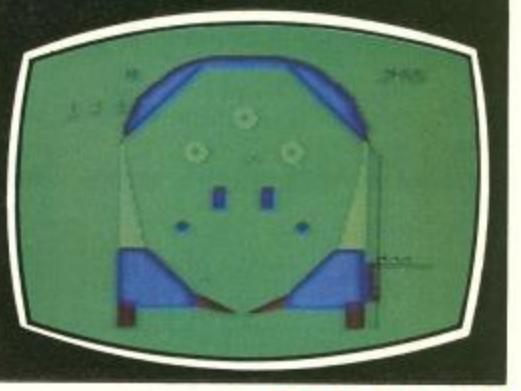
GRAPHICS	5
SOUND	4
EASE OF USE	7
ORIGINALITY	2
LASTING INTEREST	2
OVERALL	2



GAME: PINBALL
MACHINE: DRAGON 32
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: MICRODEAL
PRICE: £8.00

If you can remember the days before *Space Invaders* you'll probably remember the old favourite the pinball machine. The graphics and sound are fairly rudimentary but nevertheless *Pinball* is fun and easy to play. **SNC**

GRAPHICS	6
SOUND	5
EASE OF USE	10
ORIGINALITY	7
LASTING INTEREST	7
OVERALL	7



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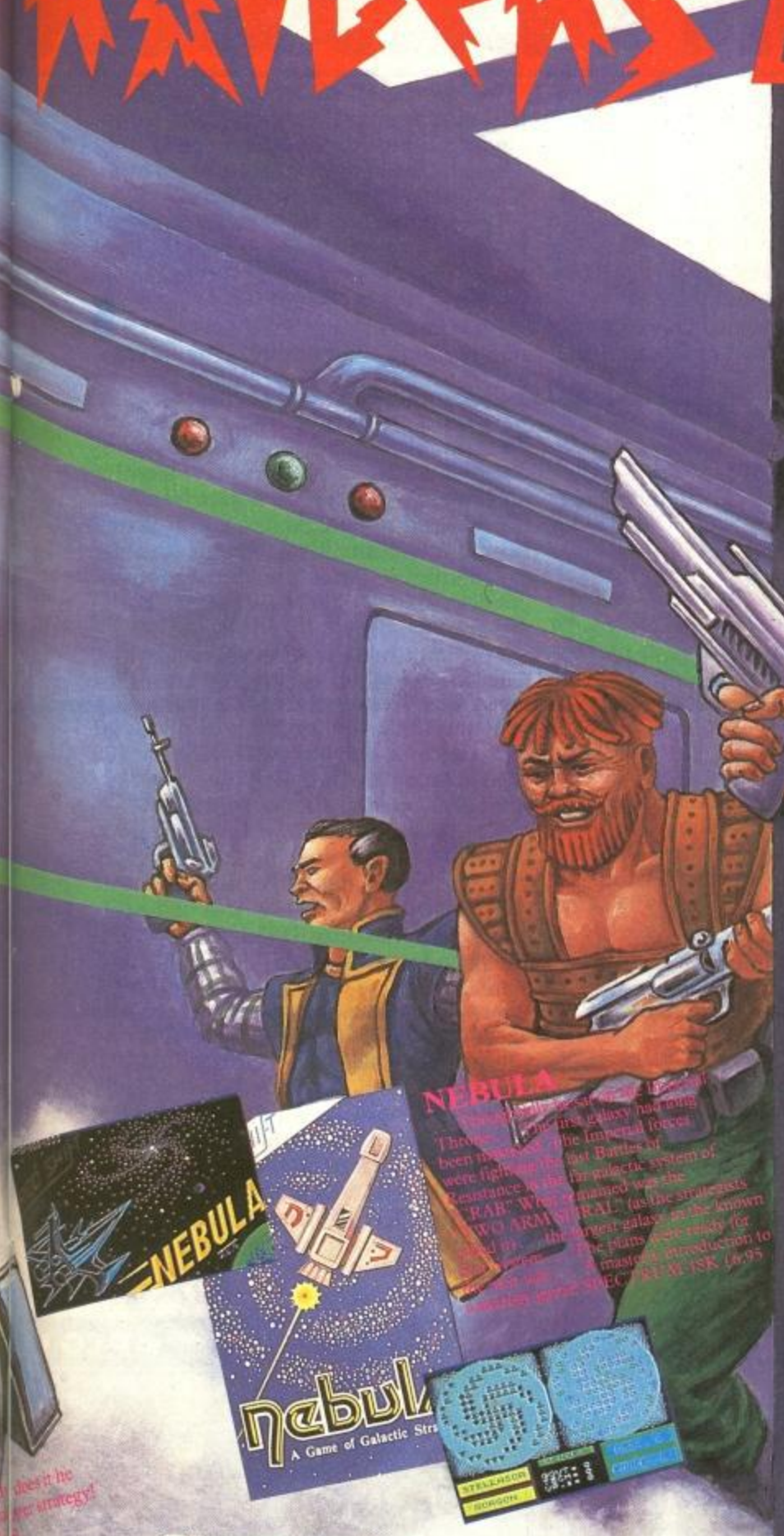

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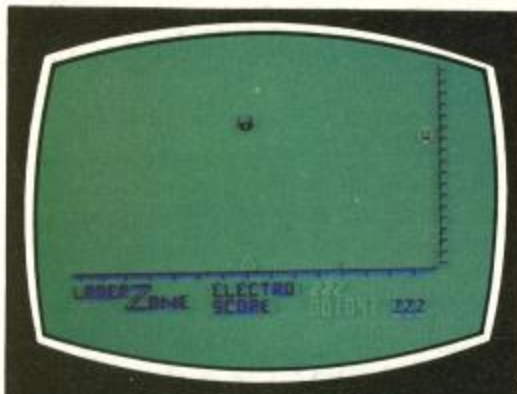


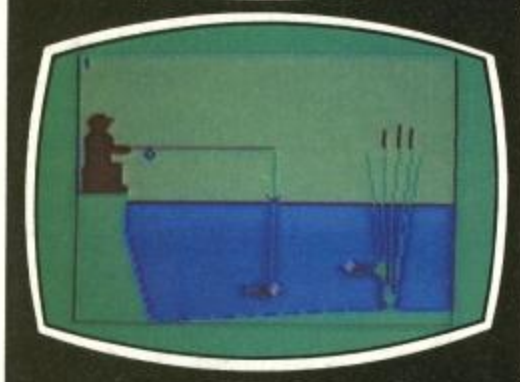
GAME: LAZER ZONE
MACHINE: DRAGON
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: SALAMANDER
PRICE: £7.95

As this game flashes on to the screen it tells you that the program is based on 'an awesome idea by Jeff Minter'.

Jeff Minter, in case you didn't know, has written some excellent games including the notorious *Revenge of the Mutant Camels*. An awesome idea from Jeff Minter is not to be sneezed at.

Unfortunately for *Laser Zone*, however awesome the original idea may have been, the final result is awesomely boring.

You control two laser bases. One moves along the bottom of the screen and fires upwards. The other moves up



GAME: HOOKED
MACHINE: DRAGON
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: SHARDS SOFTWARE
PRICE: £5.75

My Uncle Billy, whom I believe I've mentioned in these columns before, writes programs like this. He writes them in Basic. Everyone makes polite noises about them. No-one plays them.

Hooked is a brave attempt to bring all the frustration and excitement of float-fishing to the small screen. It succeeds excellently as far as the frustration is concerned. It's the excitement that's missing.

You can choose motionless or moving fish, and whether to compete with the

GAME: AIR TRAFFIC CONTROL
MACHINE: DRAGON 32
JOYSTICK: NECESSARY
CATEGORY: SIMULATION
SUPPLIER: MICRODEAL
PRICE: £8.00

You are the RPV air traffic controller for your area. An RPV is a remotely piloted vehicle. Since the aircraft are pilotless you must not only keep an eye on what is happening in your air space but you must also land the aircraft yourself.

Not only do you have to make sure the RPV's in your area are landed safely you must also make sure that aircraft waiting in the departure area take off and leave your control area safely.

Depending on the skill level (five are available) you're assigned a differing

GAME: SPACE FIGHTER
MACHINE: DRAGON 32
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: MICRODEAL
PRICE: £8.00

One of the first games ever to be played on a computer was *Star Trek*. The game was played on a printer or video terminal and had no moving graphics or sound. Microdeal have attempted to bring this game up to the standard which the home computer enthusiast expects with animation and sound.

You take charge of the starship 'Endeavour' and have to destroy the 'aggressive fleet of Krugon space cruisers' who are intent on taking over the universe.

The blurb accompanying the cassette

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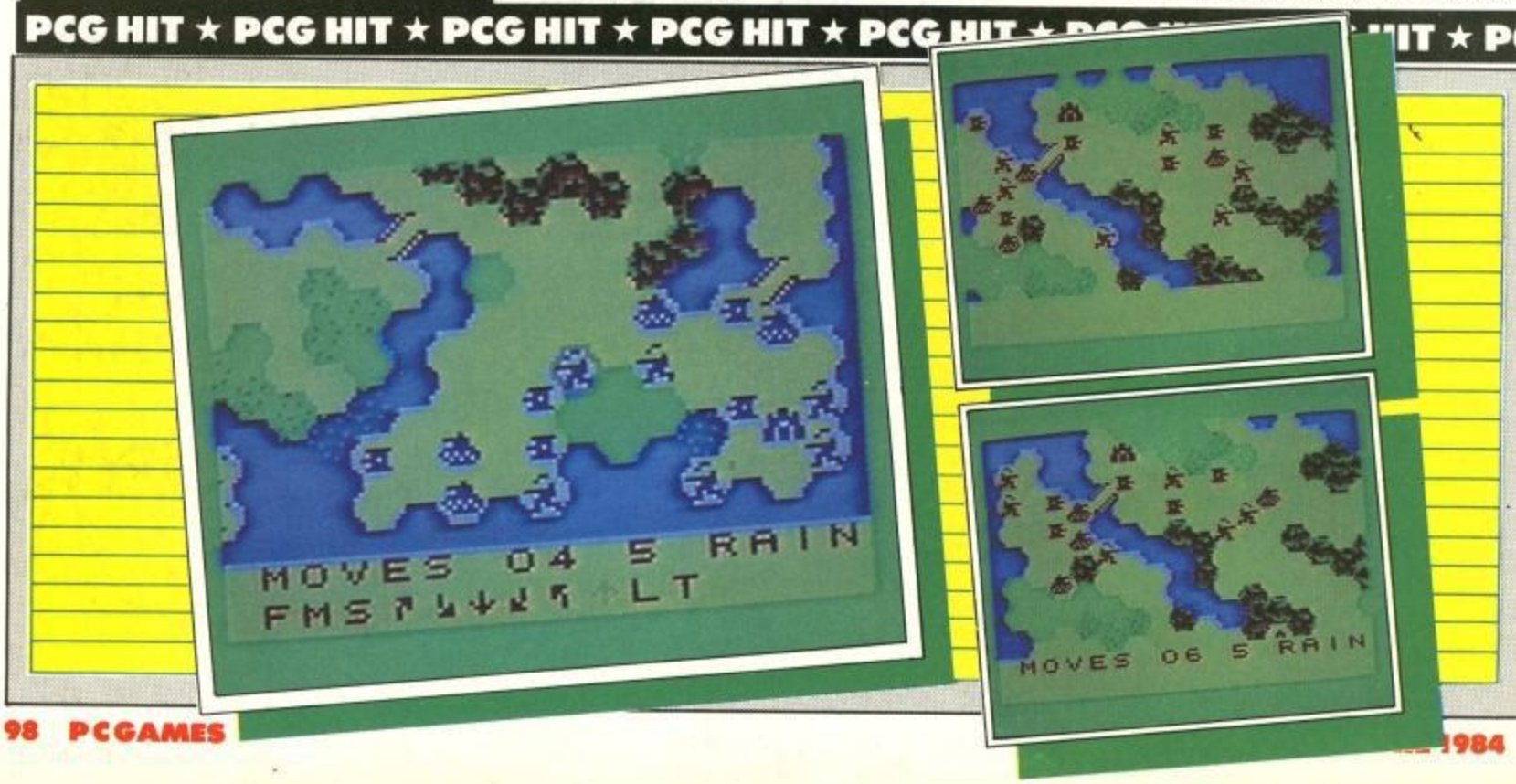

N • DRAGON • DRAGON

and down on the right and fires horizontally. You can also get them to fire diagonally.

Your targets are an assortment of aliens who've nothing better to do than creep towards your bases and blow them up on contact. You've nothing better to do than shoot them on sight.

If they make contact with either the bottom or right-hand side of the screen they start creeping along towards your base and can then only be destroyed by diagonal fire from the base on the other axis. This isn't easy.

I have to admit to a sick feeling in the stomach when playing games that take place against a green background. The sound isn't exactly thrilling either.

The Dragon user isn't spoilt for choice when it comes to quality software, but *Lazer Zone* doesn't do much to fill the gap. Hardened mega-zappers may go for it, but everybody else might as well give it a miss. **SC**

GRAPHICS	6
SOUND	5
EASE OF USE	5
ORIGINALITY	5
LASTING INTEREST	5
OVERALL	5

clock or another angler.

You play by positioning the end of your rod over a fish's head, and then letting down the line. If you get the hook in the right place, the fish will bite, and you then try and get him into the landing net.

There are four levels of play, which merely adjust the size of the target area for your hook. There isn't much difference between moving or stationary fish, since the moving fish stop when you are about to 'cast'.

If you break your line you have to spend time fixing it, and if you get the hook caught on the bottom you must try and drag it out without breaking the line.

There is no auto-run on the program, which takes place to the accompaniment of minimal sound effects. Presumably so as not to disturb the fish.

I love fishing, but this game didn't have me hooked. **SC**

GRAPHICS	4
SOUND	1
EASE OF USE	6
ORIGINALITY	7
LASTING INTEREST	3
OVERALL	4

number of inbound and outbound aircraft. Level 1 gives two inbound and one outbound. At higher levels as many as 15 aircraft can be in the air at any one time and it becomes very difficult to avoid one of those mid-air collisions you hear about in the news.

All communication with the computer is made via the joystick which does lead to a few problems as Dragon joysticks are not the easiest to use. The slightest movement can make a lot of difference. For example when you want to READ the heading, altitude and speed of an aircraft you have to put the cursor within three pixels of the aircraft. Half the time you'll miss and the aircraft in question will shoot over the end of the runway before you have chance to alter its course.

Air Traffic Control is a very difficult and exciting game and is recommended to anyone who fancies causing their own air disaster. **SNC**

GRAPHICS	8
SOUND	5
EASE OF USE	4
LASTING INTEREST	8
OVERALL	7

tells you that the 'Endeavour' is the most modern of the fleet of warships and is fully fuelled and is carrying 20 photon guided missiles. 'Guided' isn't quite what I'd call the missiles, since you're in the driving seat and you'll find it very difficult to hit anything on your first few tries (I'm very good at destroying stars!!).

The joystick is used to guide your ship around a 16 × 16 square universe which is mapped to the right of your scanner. When you have visited a square looking at this map will show you what it contains. The scanner shows your ship, Krugons, stars and bases in your immediate area.

Even though quite a few things have been added to this version it can clearly be seen that it comes from the original version of *Star Trek*. Many people found this a boring game and despite the colours and sound many people will think the same about this version. **SNC**

GRAPHICS	6
SOUND	5
EASE OF USE	7
ORIGINALITY	2
LASTING INTEREST	5
OVERALL	5

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GAME: KRIEGSPIEL
MACHINE: DRAGON 32
JOYSTICK: OPTIONAL
CATEGORY: STRATEGY GAME
SUPPLIER: BEYOND
PRICE: £6.95

A marvellous game. One that deserves to have many imitators and I for one, hope that it spawns a whole generation of clones. 'Kriegspiel' is German for 'wargames', and that is precisely what this is. If you've ever wondered why all over the civilized world men of advanced years meet regularly to shuffle lead soldiers about a table, this game will explain all.

The strategic side of *Kriegspiel* is fascinating. It's not the sort of game you master in five minutes. The cassette wrapper folds out into ten pages of detailed instructions and you need to read and master the lot before you begin playing. But it's worth the effort.

The basic aim is to get your heavy and light tanks and your infantry to march across a large map, crossing rivers on the way, and invade the enemy headquarters. The map is splendidly drawn and you have a choice of three kinds of terrain to fight over.

The whole map is divided into hexagons and whenever your piece moves next to an enemy piece combat occurs. The computer takes over and decides who wins, based on some complicated weighing of attack and defence factors, plus the roll of a dice.

Each type of piece is allocated a number of movement factors and a number of attack factors. The weather takes a hand too, since bad weather restricts movement. Your movement factors are also used up more by different kinds of terrain.

Planning a successful war strategy requires knowledge and skill. It's a great two-player game. The computer's general needs early retirement. I decimated his forces in my first campaign, but playing another thinking player would have been a great test. **TH**

GRAPHICS	8
SOUND	NONE
EASE OF USE	4
ORIGINALITY	10
LASTING INTEREST	10
OVERALL	9

• LYNX • LYNX • LYNX

GAME: COLOSSAL ADVENTURE
MACHINE: LYNX 48/96K
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: LEVEL 9
PRICE: £9.90

GRAPHICS	NONE
SOUND	NONE
EASE OF USE	5
ORIGINALITY	4
LASTING INTEREST	9
OVERALL	8

This is THE classic adventure, and although it's an old chestnut it's still worthy of attention, especially from Lynx owners who have so little choice when it comes to software.

In order to fit the large amount of data needed for all the locations into the small amount of memory on the 48K Lynx, much of Level 9's program has been located in the video RAM. Because this is a text-only adventure, this doesn't matter so much, but it has some interesting side effects.

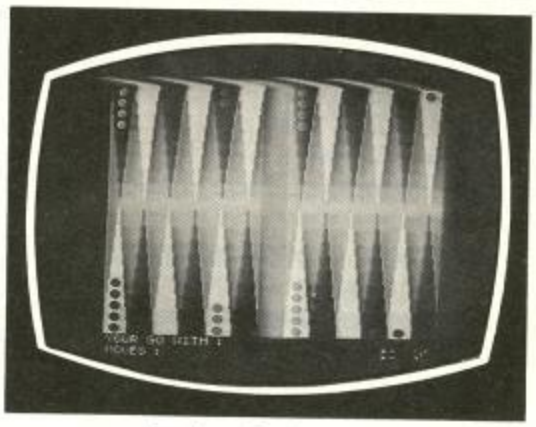
The first occurs while you're loading the program – the screen changes colour and some very odd pixel patterns appear. During actual play, the text is shown green on a black background, but as soon as you enter text the screen 'snows over' in magenta, making the text virtually unreadable for a moment or two. The display then goes back to normal, and you can easily read the description of the location in which you find yourself.

One annoyance with the Lynx in playing text adventures is the lack of scrolling, and sometimes when the screen is full it can be a bit confusing.

All these grumbles fade into insignificance, however, when you start to play. The locations are very fully described, the variety is enormous, and the possibilities seemingly endless as you explore a vast network of underground caverns for treasure.

Although by contrast with some programs available on other machines this program looks a little dated, it shines out like a star in an empty sky as far as Lynx owners are concerned. **SC**

GAME: BACKGAMMON
MACHINE: LYNX 48/96K
JOYSTICK: NO
CATEGORY: BOARD GAME
SUPPLIER: CAMSOFT
PRICE: £7.95



GRAPHICS	8
SOUND	NONE
EASE OF USE	6
ORIGINALITY	0
LASTING INTEREST	8
OVERALL	7

This well-presented version of the popular board game follows standard rules and offers 15 levels of play.

The game takes place on a pleasing combination of black and white points against a magenta background. Counters are red and green.

The computer's response is fast, and the program shows a reasonable degree of tactical sense. Over a series of ten games it beat me sufficiently often for me to suspect it of cheating.

Hardened 'gammon addicts will find the roll of the dice a little too leisurely in the final stages of the game. Another annoyance is that the input routines do not include a delete facility. If you've typed in a move and decided before entering it that you would rather do something else, tough luck – you can't change it.

If you have a man on the bar waiting for a chance to re-enter the game, but all points on the inner table are blocked, the computer will rub salt into the wound by throwing the dice as usual and asking you to move. You then have to waste time and patience telling it that you can't.

There is a double stake facility, and the usual rules for doubles and bearing off apply.

I like my backgammon to be fast and furious and this version was slightly too subdued for me, but it plays a good game and I can see myself returning to the board on long winter evenings when speed is not so important. **SC**

GAME: GOBBLE-DE-SPOOK
MACHINE: LYNX 48/96K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: CAMSOFT
PRICE: £9.90

GRAPHICS	8
SOUND	7
EASE OF USE	8
ORIGINALITY	0
LASTING INTEREST	8
OVERALL	8

By far the best version of *Pac-Man* for the Lynx, with eight levels of play, sensible control keys, frantic sound, and a large maze. Normal features plus you can pick up cherries for bonus points. There's an invisible maze option for experts, and the ghosts are quick and clever. Buy it. **SC**

GAME: PIT OF IGNORANCE
MACHINE: LYNX 48/96
JOYSTICK: NO
CATEGORY: QUIZ
SUPPLIER: RANDOM SOFTWARE
PRICE: N/A

GRAPHICS	3
SOUND	5
EASE OF USE	8
ORIGINALITY	5
LASTING INTEREST	3
OVERALL	4

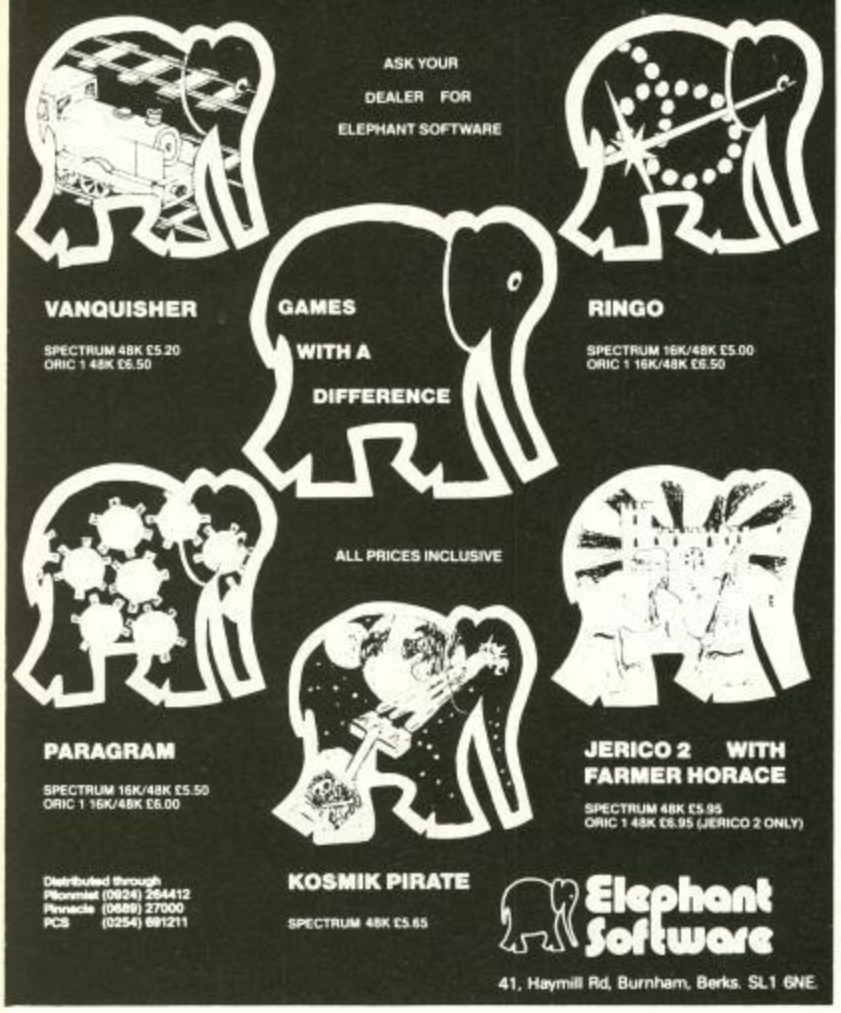
A little man has fallen down a deep pit, and you must help him out by correctly answering a series of general knowledge questions.

This variant on the hangman theme has a good stock of questions, some of which are very tough indeed. They start off fairly simple while the little man is near the bottom of the pit, but when he gets to the top, oh boy! What WAS the name of the first dog to orbit the earth in a satellite??

With each correct answer the figure clambers up another level. Incorrect answers loosen his grip and he falls down an indeterminate distance. If he falls too far he is fatally injured and you must start again.

Good for a laugh, but little else. **SC**

BAG AN ELEPHANT



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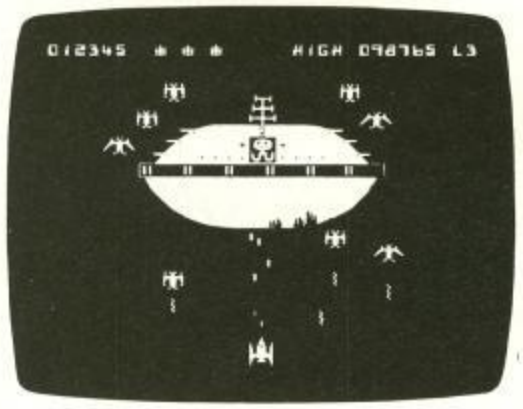

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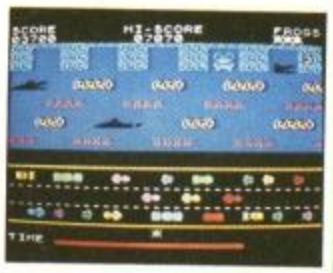

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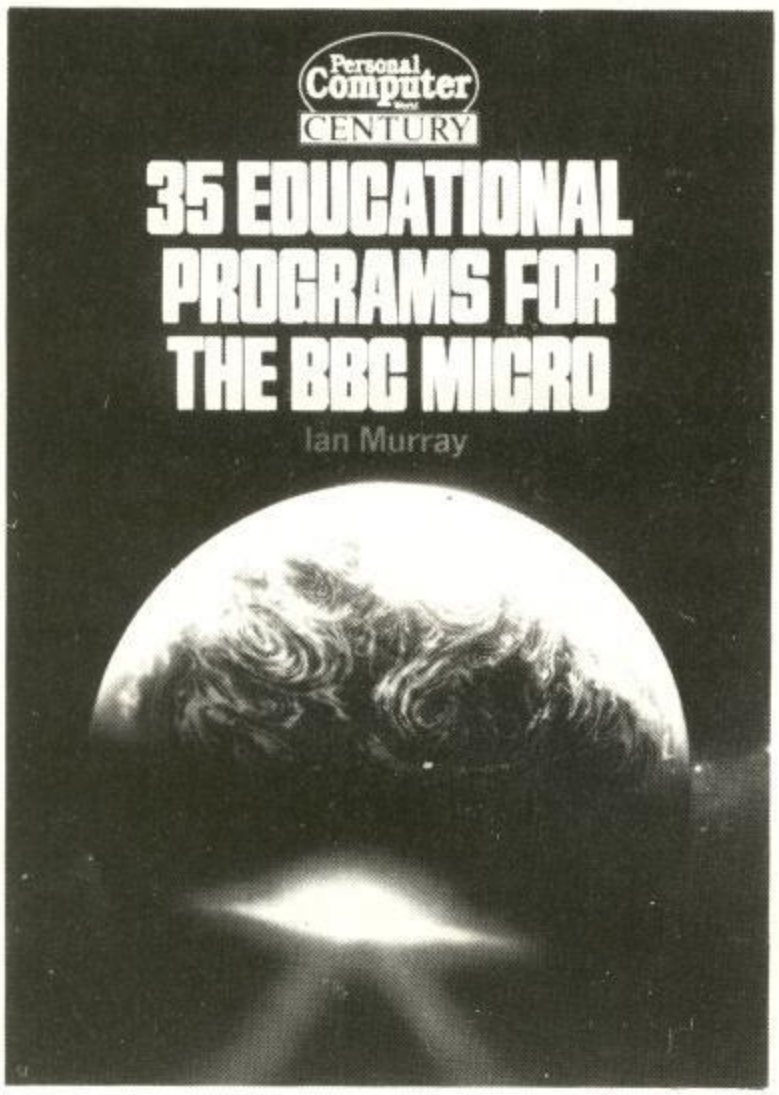

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OVER
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You'll find this section invaluable if you're trying to decide which games to buy for your micro. Like everyone else, you've probably been overwhelmed by the vast number of programs to choose from. And the fact is that while some games on offer are truly brilliant, others are a rip-off. You can't decide simply by looking at the cassette cover.

What we've done is to look at the entire range of games available and come up with some which we can whole-heartedly recommend. A considerable number of people have been consulted in drawing up these lists, and we shall constantly be updating them as new games come on the market.

Also each month we take two games from these charts and give them special treatment. One we call 'Screen Classic' and give it a page to itself in which we explain what makes it a good game. The second we hand over for special testing by our Program Control Guardians.

The games listed below are not in any special order. Those at the top of the lists are not necessarily any better than those at the bottom.

And you should bear in mind that people's tastes differ. The games listed here are all high-quality. But this doesn't mean to say that you would enjoy all of them. If possible you should always see a game before buying.

If a game is very new, we may not have had time to include it in our lists. But you can keep right up to date with all the newest games in our huge Screen Test section.

Finally, if you disagree strongly with some of our entries on these lists, or you know of a fantastic game which we haven't included, please write and tell us.

SPECTRUM GAMES

TITLE	MEM REQD	PRICE	SUPPLIER	COMMENT
Jet Pac	16K	5.50	Ultimate	Use your jet-powered man to assemble a rocket and avoid aliens
Lunar Jetman	48K	5.50	Ultimate	The follow-up to *Jet Pac*. Superb – if you can find out what to do.
Pssst!	16K	5.50	Ultimate	Use insect sprays to protect your plant from nasty bugs
Manic Miner	48K	6.00	Software Projects	Spectrum classic, with 20 different screens to guide your miner through
Missile Defence	16K	5.95	Anirog	The best of six versions of Missile Command.
Firebirds	16K	5.95	Softek	A *Galaxian* derivation. Exciting space action.
Zzoom	48K	5.50	Imagine	3D view from a cockpit. Save refugees from attacking planes, tanks etc
Galaxians	16K	5.50	Artic	The best version of the space game *Galaxians*
Penetrator	48K	6.00	Melbourne House	The most sophisticated version of *Scramble* with 5-level action
Timegate	48K	7.00	Quicksilva	A superlative version of 3D *Star Trek* with a good measure of arcade action
Jumpin Jack	16K	5.50	Imagine	One of the simplest games, yet incredibly addictive
Scrabble	48K	15.95	Sinclair	A brilliant simulation with an 11,000 word vocabulary
The Hobbit	48K	14.95	Melbourne House	A wonderous graphics adventure, which takes you through the Tolkien book
Valhalla	48K	14.95	Legend	An innovative attempt at an animated, multi-character adventure
Cyrus Chess	48K	9.95	Sinclair	Arguably the best chess game on the Spectrum
Apocalypse	48K	9.95	Red Shift	Complex strategy war game
Maziacs	48K	6.95	DK'tronics	Exciting maze game with nasty monsters
Colossal Adventure	48K	9.90	Level 9	First of a series of highly complex adventures with 200 locations
Android 2	48K	5.95	Vortex	Very difficult 3D version of *Robotron*
Scuba Dive	48K	5.50	Durell	Dive deep to get treasures. Terriffic graphics
Fighter Pilot	48K	7.95	Digital Integration	Superb flight simulator with combat features
Ant Attack	48K	6.95	Quicksilva	Amazing 3D graphics as you try to save the girl from the killer ants
Cookie	16K	5.50	Ultimate	Great graphics and original kitchen theme
Halls of the Things	48K	7.50	Crystal	Very fast and difficult advènture/arcade game
Invasion of the Body Snatchas	48K	6.50	Crystal	Best version of *Defender* – but no sound without Fuller soundbox
Chuckie Egg	48K	7.90	A&F	Compelling multi-level game with deadly ducks
The Alchemist	48K	5.50	Imagine	Arcade adventure with excellent graphics
Pi-Balled	48K	6.00	Automata	Smooth version of the pyramic game *Q-Bert*
Deathchase	48K	6.95	Micromega	Exciting 3D motor-cycle chase with superb graphics

LYNX GAMES

TITLE	PRICE	SUPPLIER	COMMENT
Colossal Adventure	9.90	Level 9	Just one of Level 9's excellent range of adventures
Gobble De Spook	9.90	Camsoft	Good version of *Pac-Man*
Backgammon	7.95	Camsoft	Wins often enough to convince you it cheats
Treasure Island	7.95	Camsoft	Simple but quirky adventure with nice graphics
Power Blaster	9.99	Romik	Simple graphics but sizzling action in this maze shoot-out

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● NEWCOMERS START HERE

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Computer games come in many different types, but these can be divided into a few broad categories.

The most common are ARCADE games. These aren't just games that you see in the arcades, but any game in which you use the computer keyboard (or a joystick) to control directly the movement of characters or objects on the screen. Arcade games themselves fall into several different categories (see below).

Then there are ADVENTURE games. The main difference is that to get things to happen you have to actually type in instructions rather than just press a key to go left or right. This means that adventures proceed at a slower pace. Their challenge is to do with brain-power, not finger-power, and a good one can keep you occupied for months.

In recent months, the dividing line between adventure and arcade games has been blurred, with pictures and even moving pictures being introduced to adventures, and arcade games being written on adventure themes.

Then there are STRATEGY games. Examples of these include games in which you control the fortunes of a country at war. The program might present the player with maps and statistics from which he will have to make his decisions.

MICRO CLASSICS

● **SCRAMBLE** Pilot your ship over mountains through caverns and around skyscrapers, avoiding missiles and meteors.

● **DEFENDER** Fast-moving space game in which your ship does battle with all manner of aliens.

● **ASTEROIDS** Destroy asteroids and alien craft using a highly manoeuvrable ship.

● **FROGGER** Guide the frog across busy roads and crocodile-infested rivers.

● **GALAXIANS** Development of *Invaders*, with the descending aliens cloning and wheeling off to the sides.

● **DONKEY KONG** Climb ladders and jump over obstacles as you attempt to rescue the damsel from the clutches of the nasty gorilla.

● **PAC-MAN** Exciting maze game; eat the monsters or be eaten.

● **MISSILE COMMAND** Protect your cities from the invaders by laying a protective covering of missile fire.

● **SPACE PANIC** Defeat the monsters by bonking them on the head and knocking them through the different levels.

● **CENTIPEDE** Blast the centipede, which splits up as it drops down on you.

COMMODORE 64 GAMES

TITLE	PRICE	SUPPLIER	COMMENT
Super Pipeline	6.90	Taskset	Lay a pipeline while fighting off deadly bugs
Jammin'	6.90	Taskset	Strange and exciting game capturing musical instruments
Matrix	5.50	Llamasoft	High speed grid game, *Centipede* derivative with unique features
Lozerzone	5.50	Llamasoft	Alien invader game with games on x, y axes
Attack of the Mutant Camels	7.50	Llamasoft	*Defender* type action with a jet fighter engaging deadly camels
Revenge of the Mutant Camels	8.00	Llamasoft	Follow-up to *Attack*, with camels fighting back and 42 screens
Motor Mania	8.00	Audiogenic	A good road race game
Falcon Patrol	8.00	Virgin	An excellent fighter simulation with a scrolling 3D landscape
Hovver Bovver	8.00	Llamasoft	Suburban gardeners run riot with their mowers in a fast and witty game
International Soccer	9.95	Commodore	Superb soccer simulation on cartridge
Twin Kingdom Valley	9.50	Bug-Byte	Superb animated graphics adventure
The Hobbit	14.95	Melbourne House	Graphics adventure based on Tolkien's book
Forbidden Forest	8.95	Audiogenic/Centresoft	Fight your way through a chilling monster-infested forest
Aztec Challenge	8.95	Augiogenic/Centresoft	Dodge spears, boulders and other hazards in a perilous fight for survival
Megahawk	6.95	Big G	Spectacular 3D space action based on *Buck Rogers* from the arcades

VIC 20 GAMES

TITLE	MEM REQD	PRICE	SUPPLIER	COMMENT
Lazerone	8K	6.50	Llamasoft	Alien invader game with guns on x, y axes
Matrix	8K	6.50	Llamasoft	High-speed grid game, *Centipede* derivative with unique features
Omega Race	Std	10.00	Vicsoft	*Asteroids* development featuring bouncing force-fields
Gorf	Std	10.00	Vicsoft	Four-screen arcade game with elements of many popular games
Spiders of Mars	Std	20.00	Audiogenic	*Defender* derivative with insect aliens
Satellites and Meteors	Std	20.00	Audiogenic	The definitive version of *Asteroids*
Choplifter	Std	25.00	Audiogenic	Exciting helicopter game, rescuing hostages
Serpentine	Std	25.00	Audiogenic	Variation of the *Pacman* theme, with gobbling serpents
Outworld	Std	25.00	Audiogenic	'State of the art' graphics for this *Missile Command* derivative
Space Fortress	Std	6.00	Romik	One of the best 3.5K shoot-'em-ups with multi-screen *Invader* action
Gridrunner	Std	5.00	Llamasoft	Predecessor of *Matrix*; fast and furious grid game
Jet Pac	8K	5.50	Ultimate	Use your jet-powered man to assemble a rocket and avoid aliens
Myriad	6K	6.00	Vicsoft	Colourful, action packed shoot-up with 99 levels
Quadrant	Std	6.99	Romik	Athletic variant on *Galaxians*, with mn jumping and shooting
Star Defence	16K	7.95	Anirog	Excellent version of *Defender*.
Chariot Race	Std	N/A	Micro-Antics	Thrilling race-game set in Ancient Rome

ZX81 GAMES

TITLE	PRICE	SUPPLIER	COMMENT
Forty Niner	5.95	Software Farm	Tunnelling game with superb high-res graphics
3D Defender	4.95	New Generation	Blast alien craft as they zoom towards you
Black Crysal	7.50	Carnell	Multi-part graphic adventure
3-D Monster Maze	4.95	New Generation	Fight your way through the maze while avoiding T-Rex
Cassette 4	6.00	Orwin Software	8 games including excellent *Scramble* and *Defender*

ORIC GAMES

TITLE	PRICE	SUPPLIER	COMMENT*
The Ultra	6.95	PSS	Multi-screen space game
Xenon	8.50	IJK	Exciting space shoot-'em-up
Zorgon's Revenge	8.50	IJK	Follow up to *Xenon* 1 with the flavour of the Spectrum classic *Manic Miner*
The Hobbit	14.95	Melbourne	Innovative graphics adventure based on Tolkein novel
Colossal Adventure	9.90	Level 9	First of a series of hugely complex text adventures
Mushroom Mania	5.50	Arcadia	Nice version of *Centipede*

DRAGON GAMES

TITLE	PRICE	SUPPLIER	COMMENT
Wizard War	6.50	Salamander	Two player game of battling wizards
Franklin's Tomb	7.50	Salamander	An eventful text adventure
The King	8.00	Microdeal	Good version of *Donkey* Kong
Frogger	8.00	Microdeal	Nice version of the arcade classic
Crusader	6.95	J. B. Morrison Micros	Rescue the damsel in distress
Empire	6.95	Shards	Computer version of the board game *Risk*
Cuthbert goes Walkabout	8.00	Microdeal	Fill in the squares to get points
Danger Ranger	8.00	Microdeal	Arcade adventure with *Kong*-style elements
Bloc-Head	7.95	Dragon Data	*Q-Bert* clone on rectangular pile of blocks
Colossal Adventure	9.90	Level 9	First of a series of hugely complex text adventures
Chuckie Egg	7.90	A&F	Addictive multi-level game with deadly ducks
Kriegspiel	6.95	Beyond	Excellent war-game with scrolling map

BBC GAMES

TITLE	PRICE	SUPPLIER	COMMENT
Planetoid	10.00	Acornsoft	The definitive version of *Defender*
Arcadians	10.00	Acornsoft	An excellent version of *Galaxians*
Meteors	10.00	Acornsoft	Probably the best version of *Asteroids* for any micro
Snapper	10.00	Acornsoft	A fine version of *Pac-Man*
Rocket Raid	10.00	Acornsoft	A fine version of *Scramble.*
Starship Command	10.00	Acornsoft	Space game with revolving ship and fragmenting aliens
Hopper	10.00	Acornsoft	Superb version of *Frogger*
Monsters	10.00	Acornsoft	The best version of *Space Panic*
Zalaga	7.00	Aardvark	The follow-up to *Arcadians* offering great gameplay
Road Runner	8.00	Superior	Car chase maze game
Cylon Attack	9.00	A&F	One of the best 3D space type games available
Colossal Adventure	9.90	Level 9	First of a series of huge text adventures with 200 locations
Chuckie Egg	7.90	A&F	Compelling multi-level game with deadly ducks
3D Munchy	4.95	MRM Software	Colourful and unusual. *Pac-Man* derivative
Killer Gorilla	7.95	Program Power	Excellent version of *Kong.*

ATARI GAMES

TITLE	PRICE	SUPPLIER	COMMENT
Star Raiders	30.00	Silica Shop	A 3D space arcade-quality game
Defender	30.00	Silica Shop	The licensed version from Williams of the Arcade classic
Caverns of War	30.00	Silica Shop	A vertical version of *Scramble*
Missile Command	30.00	Silica Shop	This is the best and meanest version of the original
Zaxxon	28.00	Silica Shop	Space-fighter multi-stage game with asteroids and space fortresses
Donkey Kong	30.00	Silica Shop	An arcade copy, superbly done
Qix	30.00	Silica Shop	An intriguing territorial possession game with clear graphics
Preppie	22.00	Silica Shop	Multi-screen arcade adventure featuring a lawn mower and vicious opponents
Choplifter	30.00	Silica Shop	Exciting helicopter game, rescuing hostages
Miner 2049'er	30.00	Silica Shop	A *Donkey Kong* derivative with novel elements
Shamus	30.00	Silica Shop	Multi-screen arcade adventure game
Necromancer	30.00	Silica Shop	Wizard battles through several levels of mystic monsters
Pole Position	30.00	Atari	Superb version of the arcade motor racing game
Tennis	25.00	Atari	Terrific simulation. Better than Wimbledon
Airstrike 2	9.95	English Software Co	Terrific version of *Scramble*

WHERE TO GET YOUR GAMES

Aardvark, 100 Ardleigh Green Road, Hornchurch, Essex
A & F Software, 830 Hyde Road, Manchester M18 7JD
Acornsoft, 18 Tower Street, Covent Garden, London WC2H 9NN
Anirog, 29 West Hill, Dartford, Kent
Artic Ltd, Main Street, Brandesburton, Driffield YO25 8RG
Audiogenic, PO Box 88, Reading
Automata UK Ltd, 27 Highland Road, Portsmouth, Hants PO4 9DA
Beyond, Durrant House, 8 Herbal Hill, London EC1
Big G, Birchall Moss Hall, Hatherton, Nantwich, Cheshire CU5 7PJ
Bug-Byte, Mulberry House, Canning Place, Liverpool L1 8JB
Camsoft, Computers Ltd, 33 Awbridge Street, Cambridge CB2 1UW
DK'tronics, Unit 2, Shire Hill Industrial Estate, Saffron Waldon, Essex CB11 3AX
English Software Co, Box 43, Manchester M60
IJK Software Ltd, 9 King Street, Blackpool, Lancashire
Imagine, Masons Buildings, Exchange Street East, Liverpool L2 3PN
J B Morrison Micros, 2 Glensdale Street, Leeds LS9 9JJ
Level 9 Computing, 229 Hughenden Road, High Wycombe, Bucks HP13 5PG
Legend, 1 Milton, Cambridge CB4 1UY
Llamasoft, Awesome Games Software, 49 Mount Pleasant, Tadley, Hants
Melbourne House, 224 Stanley Road, Teddington, Middlesex TW11 8UE
Microdeal, 41 Truro Road, St Austell, Cornwall PL25 5JE
PSS, 452 Stoney Stanton Road, Coventry CV6 5DG
Quicksilva, 13 Palmerston Road, Southampton, Hampshire SO1 1LL.
Romik, 272 Argyll Avenue, Slough SL1 4HE.
Salamander, 17 Norfolk Road, Brighton, East Sussex BN1 3AA
Shards, 189 Eton Road, Ilford, Essex 1GU 2UQ
Softek, 12/13 Henrietta Street, Covent Garden, London WC2E 8LH
Superior, 69 Leeds Road, Bromhope, Leeds
Taskset, 13 High Street, Bridlington YO16 4PR
Timescape, 1 Virginia Gardens, Fairways, Milngave, Glasgow G62 6LG
Ultimate, The Green, Ashby de la Zouch, Leicestershire LE6 5JU
Virgin, 61–63 Portobello Road, London W11 3DD

ZZOOM

April's curtain call goes to Zzoom – a Spectrum Good Buy if there ever was one

Zzoom was released in the summer of 1983. It's still among the top 20 best-sellers for the Spectrum today, which makes it one of the all-time greats in a very competitive market.

It's a classic shoot-'em-up excellently presented with endless attack waves, 3D graphics, and unlimited ammunition. Refugees scurry across a hostile landscape, under merciless attack from enemy aircraft, tanks, and submarines. Save them if you can by blasting the opposition out of the sky, or sea.

If you fail, the poor little chaps get hammered. If you succeed, and they cross the screen in safety, then you get bonus points.

The game begins with the haunting 'Dambusters' theme tune, then you blast off in your land-skimmer, your sights dead-centre on the screen and your finger on the fire button. The landscape (or skyscape, or seascape, depending how long you've managed to stay alive) scrolls smoothly across the display.

You can tell what's going on elsewhere by checking with the long-range radar scanner. Everything that appears on that screen is hostile, and if you don't get it, it will get you.

As successive attack waves come and go, planes, tanks, and even submarines will try to bring your military career to an untimely end.

Remotely piloted vehicles and Extotron missiles hurtle towards you and slowly but surely destroy your shield defences as the inevitable end approaches. Sometimes it's all you can do not to crash into the ground in panic.

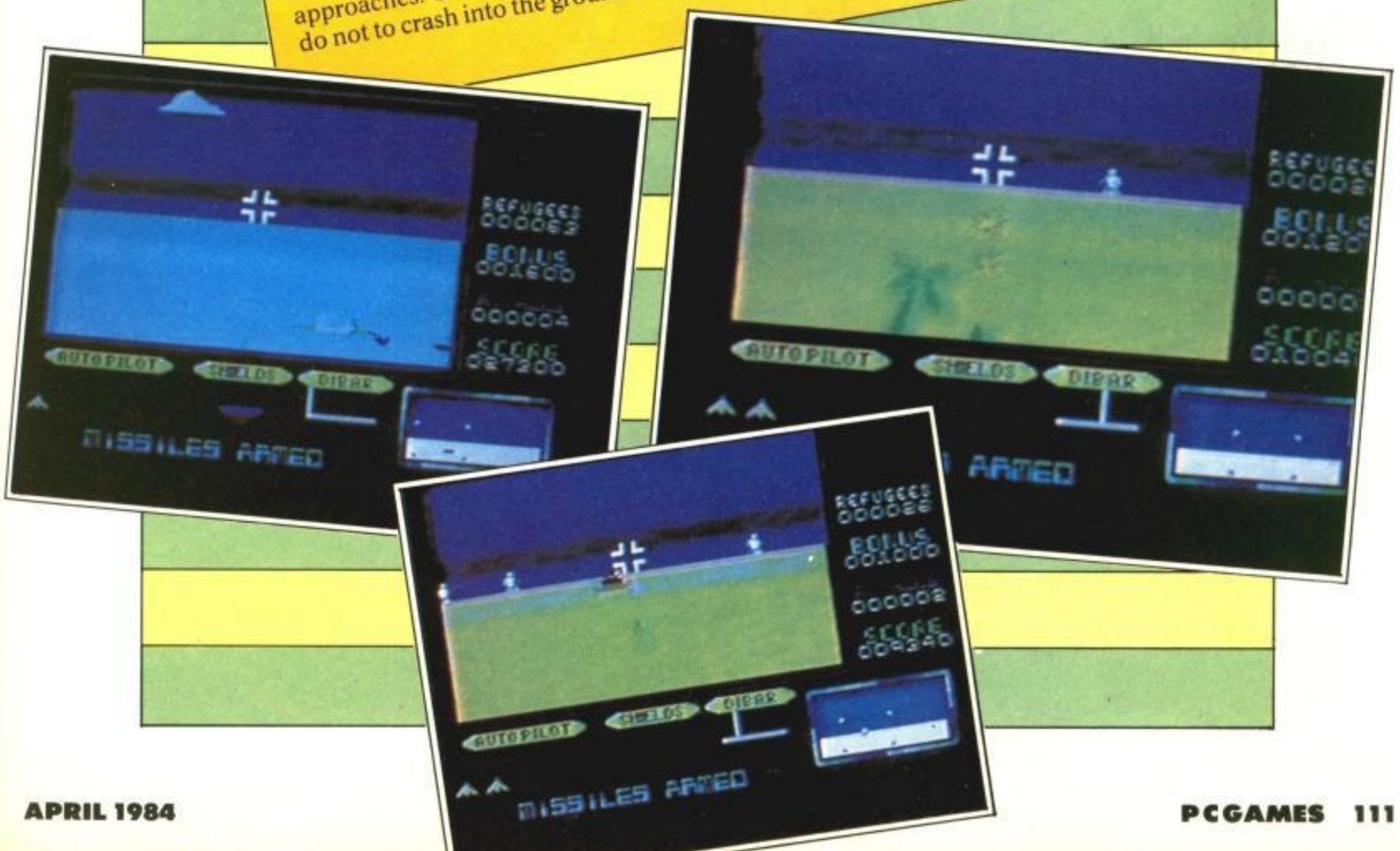
The graphics are excellent. As the refugees scuttle across the screen they occasionally stop to wave at you.

In one phase they paddle hysterically across a cruel sea. Can you blame them? If they're not sent gurgling down to Davey Jones' Locker by prowling enemy submarines, they're probably being blasted by yours truly. Come on, admit it, you always shoot the refugees, don't you? Heartless swine.

Zzoom really gets the adrenalin running. From the moment the auto-pilot switches off, the red alert flashes on, and the first refugees go up in smoke, you're on your own. And there you stay, until the last of your three craft goes down with a crash and an ominous crack splits the screen.

'Another one bites the dust!' gloats the program. Can you resist another go? Of course not ... and another ... and another ... and another...

If you've got a Spectrum and you haven't got this game, zzoom out and buy it right now.



Program Control

GUARDIANS

EACH MONTH MATI, BOFFIN, HAL AND COMMANDER CHANCE CHECK OUT A 'GOOD-BUY' PROGRAM - FROM THE INSIDE

MATI. YOUR TASK IS TO BRING B
THE GOLD. BUT BE CAREFUL, THE M
GUARD THEIR TREASURE WELL ...

SKRALL!

EYIEK!

TAKE THAT 'BIT 'BREATH

A MAZIAC!

AND ON THE WAY YOU WILL FIND SWORDS, FOOD AND OTHER PRISONERS WHO WILL ALSO HELP YOU. GOOD LUCK.. GO QUICKLY

YES CHILD I AM A PRISONER OF THE MAZIACS. YOU CANNOT HELP ME BUT I CAN HELP YOU, I WILL GIVE YOU DIRECTIONS TO THEIR TREASURE ...

YIK!

RAARW!

IT'S THE GOLD.. BUT I MUST HURRY

AT LAST.. THERE
THE ENTRY POIN

TOO LATE ... A MAZIAC
I'VE NO SWORD, I'LL HAVE TO RUN FOR IT...

LOADING PROGRAM
MAZIACS
Spectrum 48K
DK'TRONICS
I'LL BE CAREFUL COMMANDER
THE MAZIAC'S BLOOD HAS MELTED MY SWORD. I'LL USE MY VIEWER TO LOCATE ANOTHER. WAIT, I SEE SOMETHING ELSE...
A PRISONER
MATI FIGHTS HER WAY THROUGH THE MAZE UNTIL...
RRA!
YIEE!
THAT GLOW!
GRAR!
NARLG?
MADE IT.. BETTER LUCK NEXT TIME, MAZIACS.
BACK AT P.C.G. HEADQUARTERS
TERRIFIC JOB MATI, REALLY AMAZING!
THE END

Taskset & commodore 64

We're only writing games, and we're only writing for the 64. Rely on us to bring you the greatest games, the greatest concepts and the greatest value.

GYROPOD

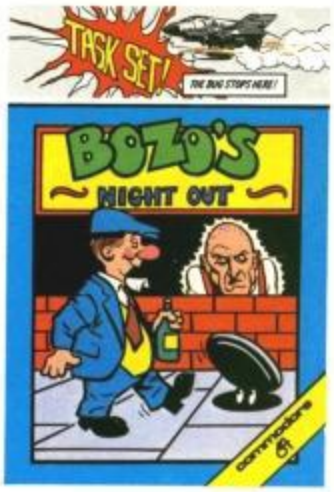
NEW

The complete deep space saga. A radical joystick action can bring inspired flexibility and a horrific kill-rate. The outstanding graphics include highly detailed craft and lots more than eight sprites at once. A full music and effects sound track accompanies the action. All these features combine with player options and a top 20 hi-score table to set new standards in hi-tech slaughter.

BOZO'S NIGHT OUT

NEW

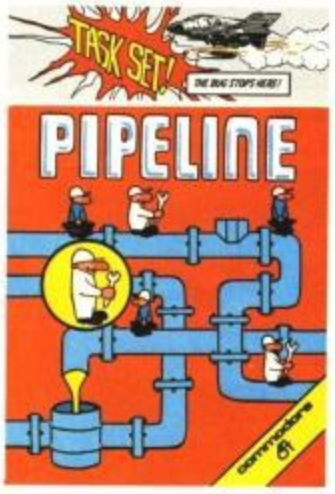
A brand new character game. Poor old Bozo, all he has to do is to get home after a night out with the lads. That's easy until a wobble becomes a lurch and a stagger. Later into the night, all rules go out of the window as he disbelieves what's happening in front of his blood-shot eyes. An epic journey with ultra-smooth graphics and sprites which run rings round normal games.



All available now on cassette or disk.

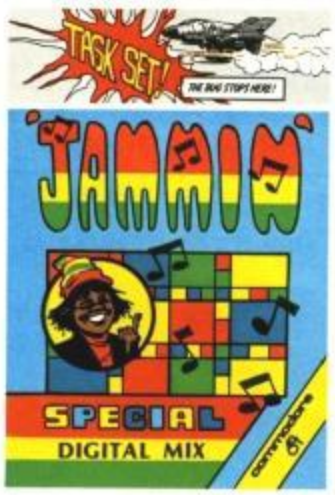
SUPER PIPELINE

Keep the pipeline open. Foreman Fred and Plumber Pete have their work cut out. The evil ladderman drops metal wedges to plug the pipeline – and only Pete can fix 'em. Pete trusts Fred to defend him against the six-legged Venusian pipe spiders and the hard case lobster while he knocks out the plugs and restores the flow. Full accompanying music and effects, options and hi-score table.



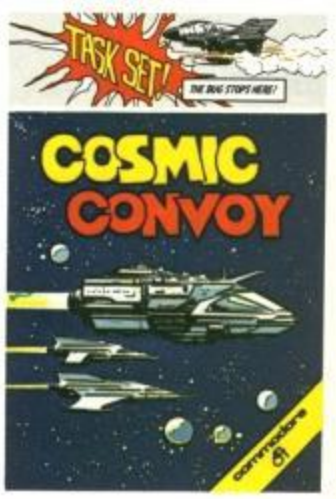
JAMMIN'

Unlike anything else, a totally musical game yet highly colourful. Guide Rankin' Rodney through the top 20 mazes – each with an interactive rock sound track. Gather the instruments and make a band but watch out for bum-notes, dischord and that most deadly effect – distortion. If you've never heard the full music capabilities of the 64, grab an instrument and join the band.



COSMIC CONVOY

Just surviving is not good enough in this giant convoy. Control three fighters at once, to defend the huge transporters as they ply between the planets. Only those transports reaching planetfall will gain galactic credits, and no-one expects promotion for losing the entire fleet. Which freighters must be sacrificed to get most cargo to the next planet. Full sound options and hi-score table complete the arcade package.



TASKSET LTD – *The Specialists*

Naturally, everything we've written for the 64 is available on either cassette or disk.

Selected titles available from:
W H Smith, Boots, Menzies and all good computer stores.

Major distributors include
Microdealer UK, Websters, Centresoft and P.C.S.

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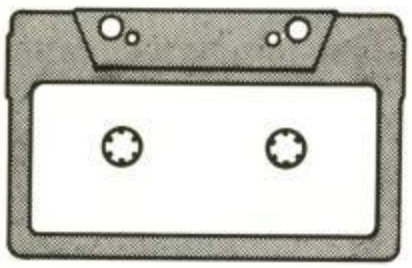
cassette



£6.90 each / £9.99 each

disk

See you at the P. C. G. SHOW where else? stand 42

Four new books for games lovers checked out by David Ponting, Steve Mann, Tony Harrington and Steve Cooke

Writing Strategy Games On Your Atari – Techniques For Intelligent Games by John White (Sunshine Books)

At last! Despite the hundreds, perhaps thousands, of books for home computer enthusiasts pouring off the presses, no-one till now has really produced a book on games strategy that the beginner could sit down with and start writing intelligent games programs.

David Levy, the international chess master, came closest to this with his book on strategy games. White is generous in his acknowledgement of Levy's influence on him. But when it comes to a blow by blow account of what goes into writing a strategy game, White is in a class of his own.

He assumes that the reader knows something about programming in Atari Basic. But the starting point is low level enough for that Basic knowledge to be pretty basic. To help the beginner grasp what 'intelligent' moves mean, White divides all moves into three different categories: random, directed and intelligent.

The first category speaks for itself, a missile fires blindly, hoping to hit you. 'Directed' moves, he points out, look 'intelligent' since they are aimed at you, but that is only because the computer has been programmed with a formula which reduces the gap between you and the enemy craft. It doesn't really possess a strategy for finding you since it already knows where you are. 'Intelligent' moves, on the other hand, have to be selected out of a number of possible alternative moves.

This kind of decision involves devising a scheme which can evaluate the relative merits of the various choices, assign them values, and then choose the highest value. Chess is the supreme example of an 'intelligent' game, and it is given pride of place throughout the book. Experienced chess programmers won't learn a great deal, but that doesn't detract from its value as an excellent starting point for the beginner who has grown bored with writing blob-chasing games.

There are many illustrative programs which you can type into your Atari, and if you can't produce at least the beginnings of a chess program after reading this book, you're probably not in the right line of business. **TH**

101 Tips for the Vic 20 and CBM 64 (Arcsoft)

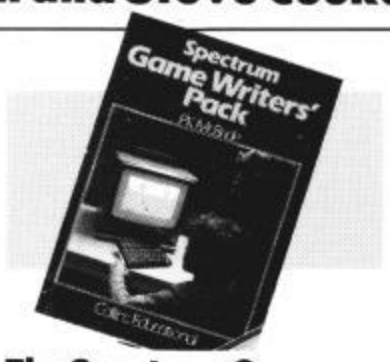
Understanding the Basic commands on the Commodore range of computers is not too difficult for most people; but learning to put these commands together into a Basic program that actually does something can often be fraught with problems for the new owner. A little help in these early stages can save hours of frustration.

This book from Arcsoft provides you with over 100 routines and programs which you can use either by themselves for your own amusement or (with small alterations) as subroutines within your own programs.

Whilst these tips and tricks are generally short and simple they do provide a useful introduction to the more powerful but difficult Basic commands such as MID$,STR$,FOR...TO ... STEP ... NEXT and so on. The listings could be clearer, being in rather faint output from a dot-matrix printer, but at least they will therefore be free from typesetting errors and the print is a good size for reading.

There is one big drawback to this book; it was obviously originally written for the Vic 20 computer and very little has been changed to accommodate the CBM 64 machine. When I keyed a random selection of programs into my CBM 64 I found at least 17 that wouldn't work on that machine.

In particular, not a single program in the section on graphics will run as it stands on the CBM 64. To be sure, it is fairly simple to alter the routines, but if you know enough about Basic to do that, then this book will probably be too simple to be of much use to you.



The Spectrum Game Writers' Pack by P K McBride (Collins Educational) £7.95

This package consists of a cassette and a 104-page book.

At a very early stage the reader is introduced to concepts such as controlling the movement of objects from the keyboard and the detection of collisions. McBride then moves on to consider various other types of game: guessing games of the *Hangman* type, bat and ball games, mazes, unbeatable noughts and crosses – in fact, all the staple fodder so beloved by computer book authors.

There's even a section devoted to cheating, in which hidden program lines are used to load the odds in the writer's favour.

The accompanying cassette gives a selection of ready-to-run games, as well as a collection of routines that may be incorporated in the user's own programs. The book is generally easy to read, with material sensibly split up into small easily digested sections. Although almost everything here is covered – often in considerably more detail – by one or other of the huge selection of books about the Spectrum, the inclusion of the ready-to-run routines and the 'no fuss' writing style make this an attractive package for the computer beginner who is keen to get on with writing games.

But I must stress the 'beginner' but – those who want to know how to achieve sophisticated graphics of the Ultimate or Imagine calibre will have to look elsewhere. **SM**

The Complete Sinclair Database (Big Brother) £6.95

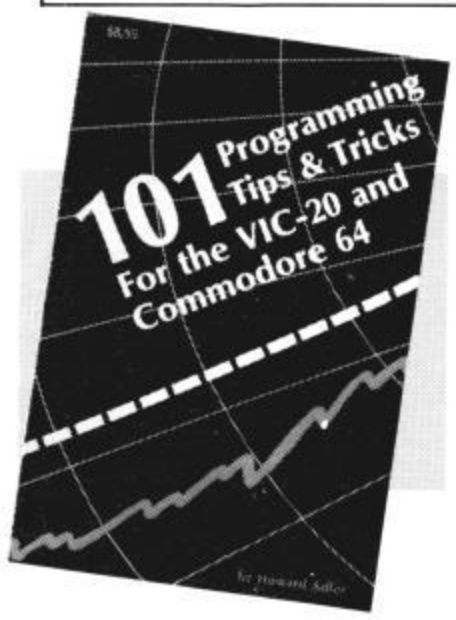
Big Brother has been keeping a close watch on the Sinclair software market, and now he's put it all down on paper. 'The Complete Sinclair Database' by Big Brother Publications is the result.

The book is a compilation of software and hardware reviews, together with brief sections on Sir Clive Sinclair, Spectrum history, and fault-finding.

At £6.95 this book doesn't look a very promising buy. There are 114 games reviews, but the market changes so quickly that these will soon be out of date. Updates will be available but these will cost about £2.00.

The hardware sections might be more useful, but glancing through the ads of the popular magazines will probably give you as good an idea of the market, and a more up-to-date one at that.

Book publishing is an expensive and lengthy business, and the Spectrum software market is fast and cheap. 'The Complete Sinclair Database' falls uneasily in the middle. There are better ways of spending £6.95. **SC**



The publisher's blurb on the jacket claims that each program has been tested on the Vic 20, but casually omits to mention the 64. No wonder! Come to that, they also advertise 'a handy Appendix' which seems to have got lost at the printers.

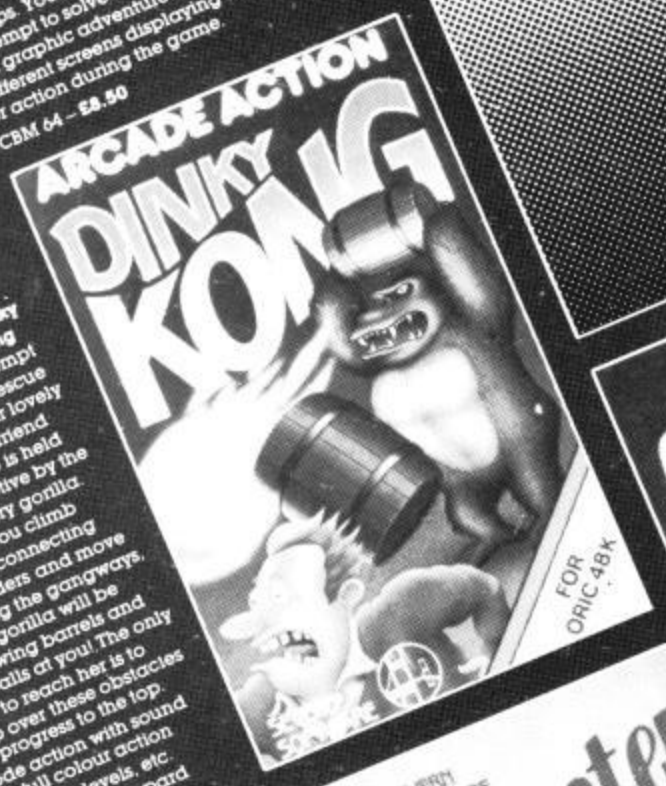
In conclusion then, this book is likely to be of some value to Vic owners looking for a simple introduction to practical programming. But Commodore 64 owners would be better advised to spend their money elsewhere. **DP**

RISE TO THE

Mystery of Munroe Manor If you find yourself wandering the misty moors when you come across the gates to Munroe Manor. Old man Sastow has disappeared but reports persist of his wealth hidden somewhere in the manor . . . The baying of hounds from within the grounds bring to mind tales of wandering ghosts and hidden traps. You, our intrepid friend, are about to attempt to solve this mystery . . . and live! A full graphic adventure containing 70 different screens displaying each location or action during the game.

CBM 64 – **£8.50**

Mystery of Munroe Manor
available late February



Dinky Kong Attempt to rescue your lovely girlfriend who is held captive by the angry gorilla. As you climb the connecting ladders and move along the gangways, the gorilla will be throwing barrels and fireballs at you! The only way to reach her is to leap over these obstacles and progress to the top. M/code action with sound effects, full colour action graphics, skill levels, etc.
Author – Adrian Sheppard
Oric-1 48K – **£6.95**

Moria A challenging adventure game set in the mines of Moria. You'll have to try and survive encounters with the monsters of middle-earth while trying to locate Durins Ring. The Wizard and Trader may help or hinder you on your journey to find and open the hidden door to freedom – a game that will really test your character and staying power.
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Author – Adrian Sheppard
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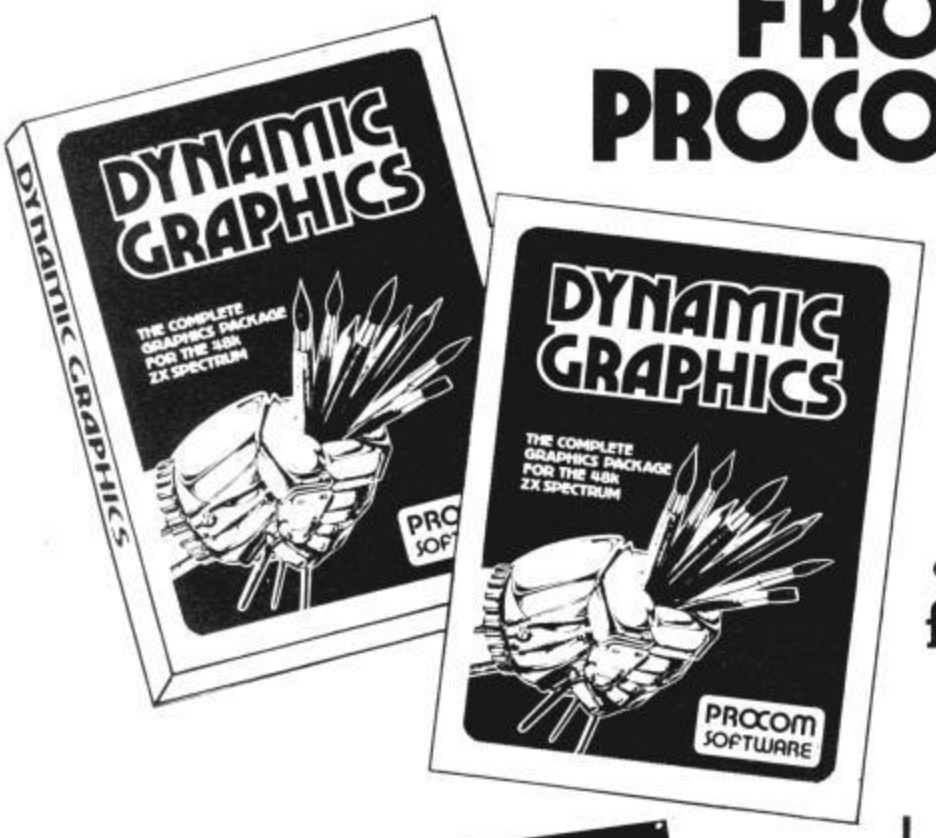

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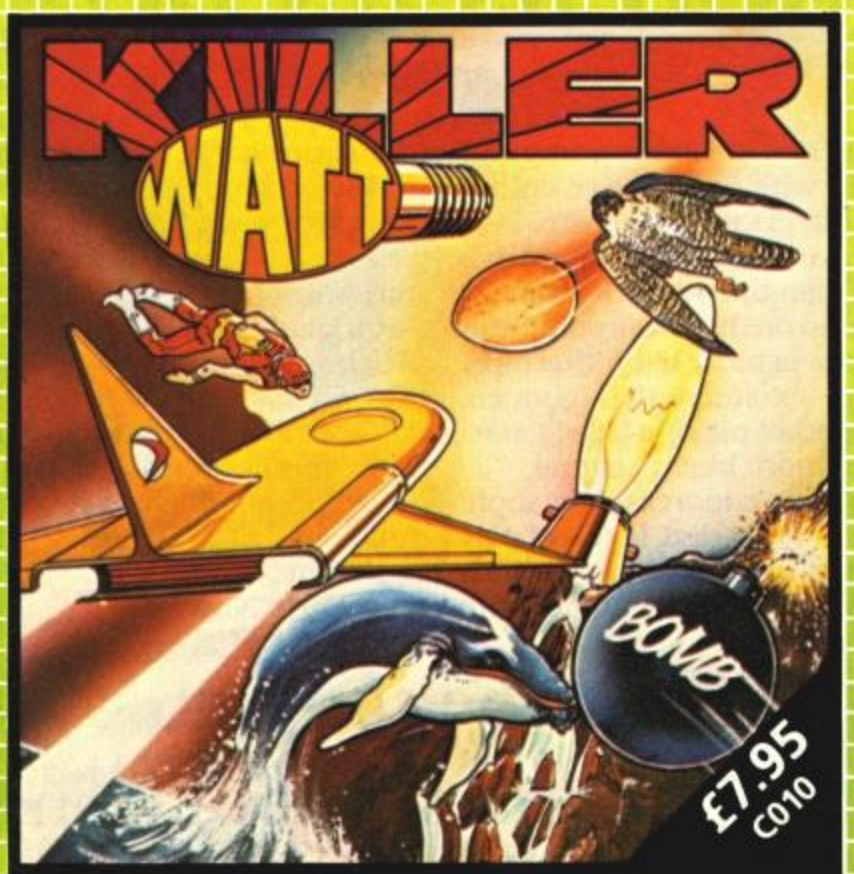

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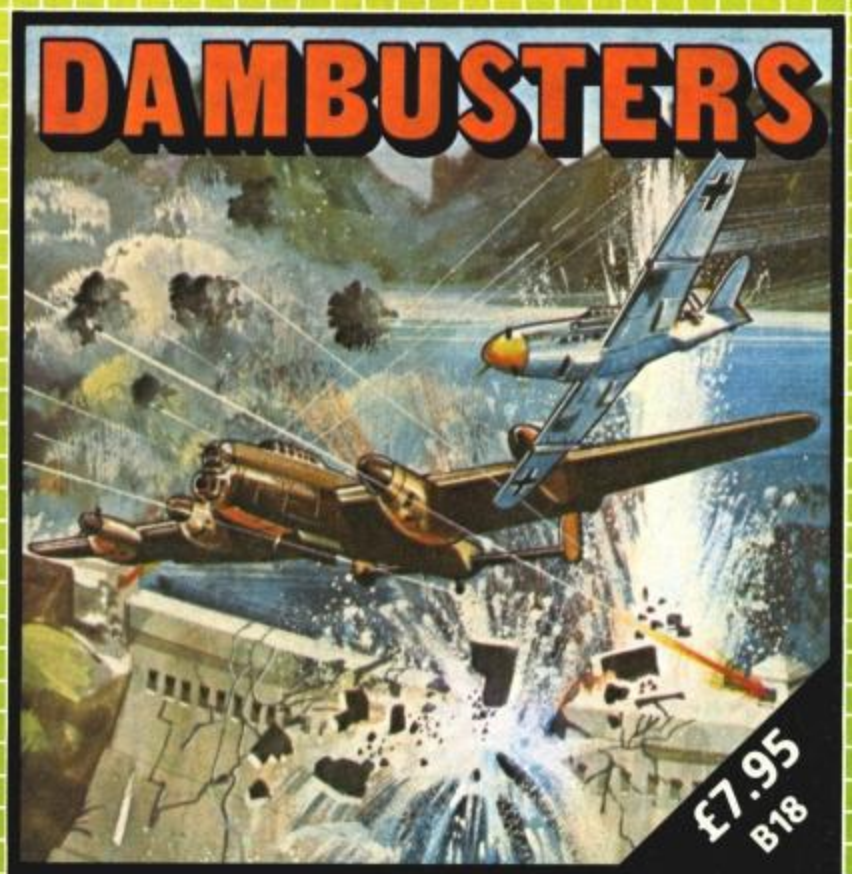

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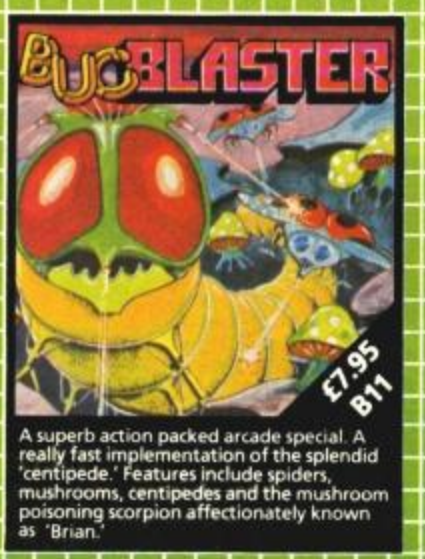

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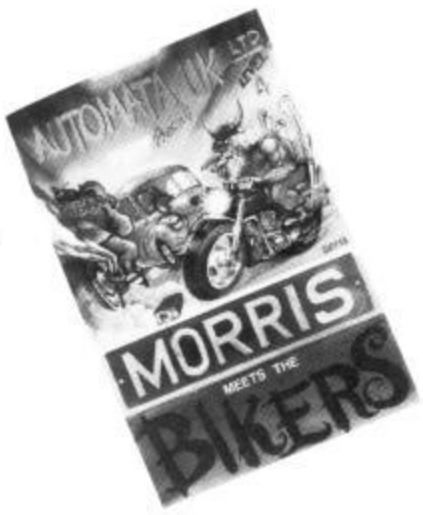

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More hints from Jeff Minter who this month reveals the gentle art of la

WRITING GAMES

The ideal of most game designers is to spend as much time on the design of a game as possible, and as little on the programming as you can get away with. Programming is the drudgery you must endure to transfer your game idea from brain to silicon. Designers at Williams Electronics (*Defender, Robotron* etc) call most programming 'grunt work'.

Arcade game designers usually have teams of programmers working for them. Unfortunately, we aren't so lucky. We must do the job ourselves – so the best you can do is get a machine which does a lot of the work for you.

In order to see which of today's micros would make a good Lazy Programmer's machine, we must look at developments in home computer graphics.

Way back in the dawn of prehistory there was the Apple II. This used a system of graphics known as 'Bit Map'. What this means is that 8K odd of memory is set aside as picture memory.

By POKEing into this 8K block it's possible to light up, or erase, dots on the TV screen. The Apple was the first cheap home micro to have this capability.

The trouble with bit map graphics come when we try to get fast animation. A lot of PEEKing and POKEing to the screen is needed in order to move even small objects on screen. If many objects are to be moved in your game design, then Bit effects are possible, but only with large amounts of 'grunt work'.

The next major evolutionary step, from the game designer's point of view, came with the Atari 400/800 micro. This possessed the revolutionary 'player/missile' graphics system. The user could design shapes and cause them to move smoothly anywhere on screen with a simple couple of POKES. There were no worries about accidentally erasing background material, and the images could even be made to pass behind or in front of background data. (What this means is that you could draw stuff on the screen, then move your aliens around over it without messing it up.)

That's more like what we need! The system of player/missile graphics took much of the drudgery out of moving graphics. The Atari machines also introduced 'hardware smooth scroll' which allowed you to move the whole picture left, right, up or down very smoothly and very fast.

Spectacular

The Atari system was the first true Lazy Programmer's machine. Spectacular effects were available with a minimum of programming hassle. The Atari remains to this day one of the nicest systems to write games on – ask anyone who's produced any games on it.

Since then we've seen the introduction of similar machines such as the Commodore 64, Sord M5 and Spectravideo SV-318. These all support sprite graphics (an extension of the original player/missile system), although some lack the smooth-scroll capability.

When looking for a machine, you should look for the following features if you fancy saving yourself a lot of time and effort:

Sprite graphics – the more sprites supported, the better.

User-definable characters – generate pretty backgrounds without using much memory.

Hardware smooth scroll in x, y or preferably both directions.

Bit map display option – this archaic system isn't quite dead yet: it's useful for very detailed backgrounds, plotting graphs, and generating starfields and explosions.

Hardware sound generation – some systems hang up the main processor whilst generating sound. Avoid these like the plague.

Getting a system with as much of the above as you can – and plenty of memory – means you'll be able to get more action for less machine code.

Capabilities

When you have one of these advanced systems, your first priority should be to learn its capabilities. Spare no expense on books such as 'De Re Atari' for the Atari system, or the 'Programmer's Reference Guide' for the Commodore 64. These books save you a lot of experimentation and tell you exactly what goes on when you use the system's special features.

Get yourself the best assembler you can afford. A good assembler makes for an easier time in writing machine code. The best thing to aim for is a good two-pass assembler which allows labels to be used.

Use sprites to the max. They are the single best thing to happen to the games industry since the invention of the joystick.

Many people complain that they don't have enough sprites. This shouldn't really matter. The CBM64, for example, has 'only' eight sprites. The secret lies in good game design: make your games so that they only need eight sprites!

Before you complain that you can't do anything worthwhile with so few sprites

consider that possibly the hottest arcade game of all time consisted of five sprites on a static character background. The game is, of course, *Pac-Man:* ludicrously easy to program on any sprite-based machine, and an example to any aspiring designer.

Check out my own *Revenge of the Mutant Camels* too: many people have asked me how I got more than eight sprites into the game, to which I simply reply: I didn't!

If you absolutely must have more sprites, there are usually ways and means of beefing up the sprite capability of your machine. These techniques involve generating interrupts in order to switch between sprite 'banks' at a specific points on the TV screen.

On the Atari this is called 'display list interrupt'; on the Commodore 64, it's 'raster register interrupt'. The switching of sprite banks is called 'multiplexing', and there are two different kinds; whole-screen multiplexing and zonal multiplex.

Whole-screen multiplexing is where two different sprite sets are alternated every 50th of a second. The advantage of this system is that all sprites can move anywhere over the whole screen. The disadvantage is that both sets of sprites appear transparent and at only half normal intensity. The results tend to look a bit flickery.

Multiplex

A zonal multiplex is where sprite sets are switched at determined vertical positions on the screen. For example, we could have eight sprites in the upper half of the screen, do a zonal 'plex halfway down the screen and have eight more in the lower half. The advantages of this system are that the sprites retain

lazy programming

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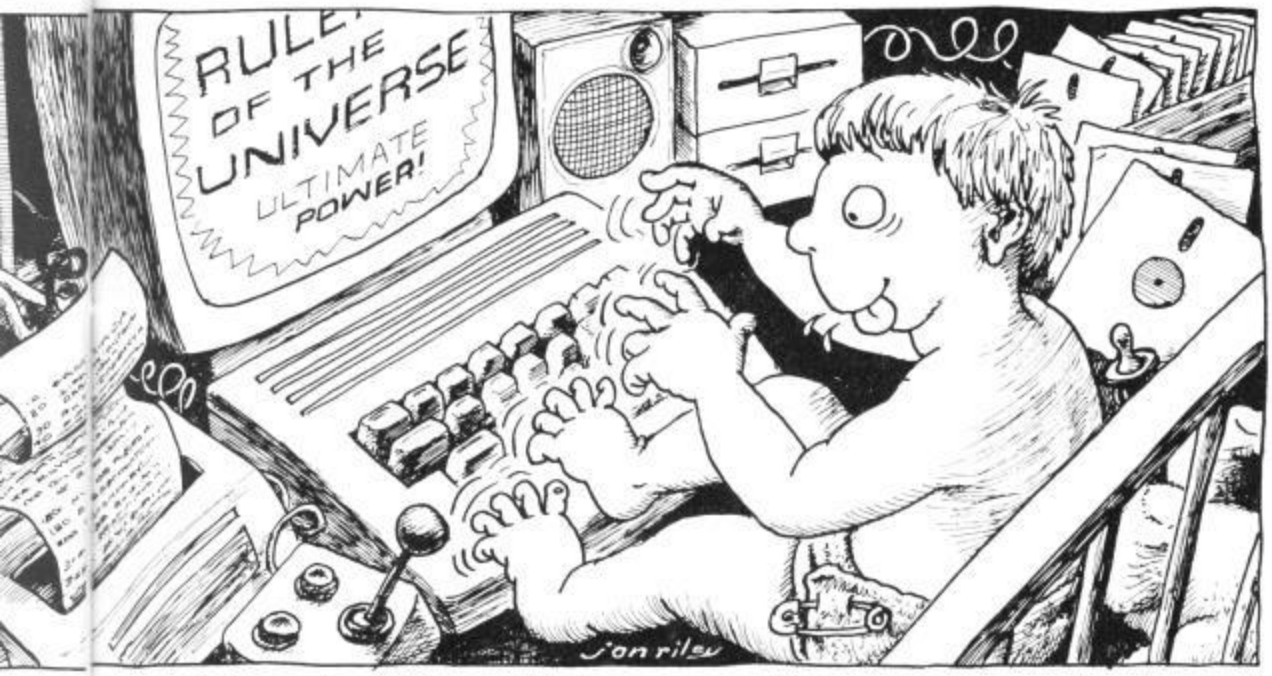

their usual solidity, and that you can have lots of zones each with the system's official sprite maximum capacity.

The disadvantage of this system is that individual sprites cannot leave their allotted zones. Good examples of this are the zonally-multiplexed player/missile goats in *Canyon Climber* on the Atari.

Hardware smooth-scroll is another extremely powerful feature on the new generation of systems. At its simplest level it can be used from Basic just to shake the screen around a bit (when your ship gets hit, perhaps). At more advanced levels, it allows beautifully smooth scrolling in any direction (see the diagonal scrolling in *Zaxxon* on the Atari, or the smooth scroll of the cavern on Anirog's *Scramble* on the 64).

Using this feature to the full requires a good knowledge of interrupts since to keep the picture smooth and glitch-free, scrolling should be performed while the TV beam is 'flying back' to the top of the TV picture.

Also using interrupts, it's possible to break up the screen into vertical zones (as with zonal sprite multiplex) and smooth-scroll parts whilst holding other bits static (see *Revenge* on the 64), or even to scroll in opposite directions (see *Preppie* on the Atari).

User defined characters are extremely useful. By building up an image from a series of pre-defined 'bricks', large images can be formed which don't take up much memory. Imaginative design can produce images where the character-based build up of the image is virtually undetectable (see the background on Intellivision's *Frog Bog*). The technique is especially useful in depicting walls or regular structures (see *Falcon Patrol* on the Commodore 64).

Perhaps the most spectacular effects of this system are due to the fact that when you alter the definition of a character, all images of that character on screen change instantaneously. (Except on the Spectrum, where even the characters are in bit-map. That's why it's so slow).

What this means is that, taking the simplest case, you could from Basic display and waggle simultaneously the legs of 200 space invaders. Or 300, 400, whatever. The speed would be the same since changing the definition of the Space Invader character would take instantaneous effect.

To make a more useful example, say you define a character like a cross. Then say you took the eight bytes forming the character definition and re-arranged them so that byte 'O' moved up to become byte '1', byte '1' moved to become byte '2', and so-on until byte '7' became the new byte '0'. This operation would 'rotate' the image of the cross down vertically by one pixel. Do this repeatedly, and your cross 'rotates' downwards continually.

'Big deal', you might say, 'what use is that?' Well, try this: fill the whole screen with your cross character and do it again. You'll get a whole-screen smooth-scrolling grid with virtually zero effort. You can just as easily make the grid scroll up, down, left, right or any combination of these by operating on just eight bytes. It doesn't even have to be a grid – any regular shape will work. (See *Matrix* on the Vic for a demo.)

Character-mode graphics have a vast potential in this 'instant-change' capability. You can get a lot of screen to change with a little effort. With hardware scrolling and sprite graphics they promise great things.

Sound advice

Don't skimp on the sonics. Good sounds are as important as good graphics in any game. When you play games like *Preppie* on the Atari the thing that impresses you is the soundtrack. When you play *Defender* you remember not only the graphics and ferocious difficulty of the game, but also the deep, threatening pre-game sonics and the satisfying 'thunk' when you blow away the creepy alien weirdos.

By pitching low voices at the same frequency but then de-tuning one voice by a small amount, an excellent 'phased' type sound is generated. Themes played using this method sound really good: listen to the start of *Repton* on the CBM64 as an example.

Hooking in a tune-playing routine to your system's interrupts is a good idea since interrupt driven music routines keep good timing and can run simultaneously with your game's action (as in *Hover Bovver* on the 64). Please do add a 'kill tune' option, or the loonybins of the country will fill with vacant zombies humming crazed repetitive tunes and twitching their joystick hands in a feeble manner.

Lazy programmers unite!

I've tried to explain the advantages of owning, and some techniques for using, the Lazy Programmer's machine. Since most of us would rather be designers than slog away day after day at repetitive programming tasks, look for the magic ingredients: sprites, sound, smooth scroll.

Amazingly, many micro manufacturers still haven't got the message: look at Clive's new baby, not a sprite in sight! Even Commodore's new machines appear to have dropped their sprite generators, for why I don't know. Look to the arcade manufacturers, for they are the ones who'll deliver the goods: Atari and Coleco have good sprite-based systems already, and the new MSX standard machines out of Japan will certainly be good for Lazy Programmers, and of course the CBM 64 is an ideal Lazy machine.

Finally, look in the arcades. This is where the sprite began, and the features of our Lazy Machine are all descended from arcade roots. If we are to be games designers, shouldn't we allow ourselves the same luxuries as the professionals?

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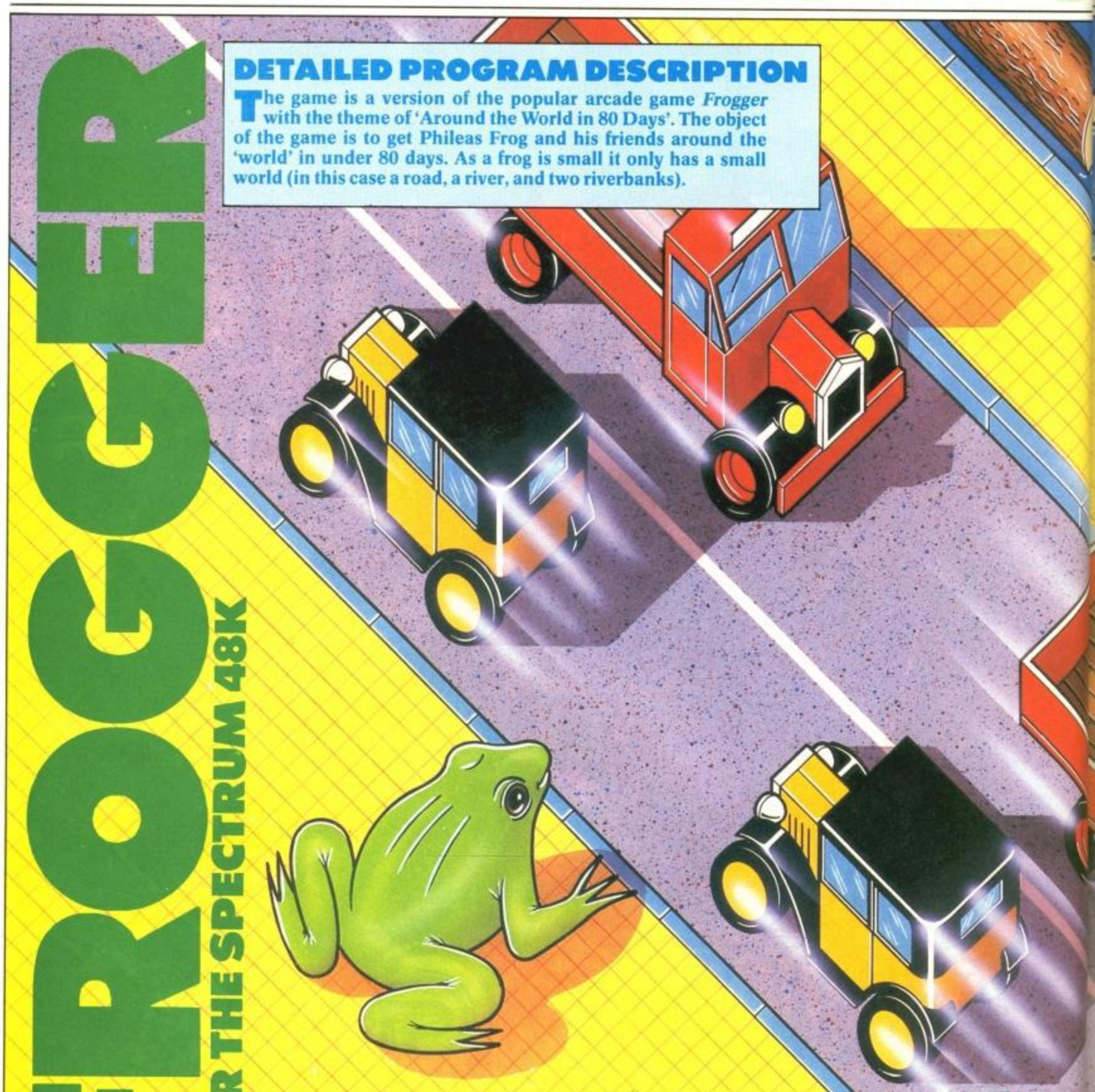

DETAILED PROGRAM DESCRIPTION

The game is a version of the popular arcade game *Frogger* with the theme of 'Around the World in 80 Days'. The object of the game is to get Phileas Frog and his friends around the 'world' in under 80 days. As a frog is small it only has a small world (in this case a road, a river, and two riverbanks).

Lines
30 – 210 Set up user defined graphics.
220 – 440 Initialize variables, strings and display screen.
450 – 490 Introduction tune.
500 Set up more variables.
510 Move all elements of the strings to left or right.
550 Sets last key pressed to 0 as PEEK 23560 gives the code of the last key pressed irrespective of whether it is still being pressed.
570 If a key is pressed K becomes the code of this new key.
590 If new key is a cursor key (codes 53-56) then remove old frog and make a sound.
600 Jump to movement section (lines 1060-1160).
620 Checks to see if frog has reached bank.
630 Prints new frog.
640 Jumps to 'live or die' routine (lines 1007-1021).
650 Stops you jumping backwards and forwards continuously to gain extra points.
660 – 700 Increase days and display score.
710 – 720 Carries you up or down river.
730 Checks you're still on screen.
740 End of main loop.
750 Checks if you've landed in an unoccupied house. (Screen $ cannot differentiate between a space and an empty user graphic so 'houses' were printed with X's with ink and paper blue.)
755 Lose a life.
760 Goto end of game routine (line 900).

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```
  20 REM written by Andrew Seama
n,
Rd                    19 Victoria
                      Oundle
                      Peterborough
                      PE8 4AY
  30 FOR f=0 TO 119
  40 READ a
  50 POKE USR "a"+f,a
  60 NEXT f
  70 DATA 0,255,255,255,65,255,4
8,0
  80 DATA 0,188,164,164,60,252,2
4,0
  90 DATA 7,15,15,127,128,95,64,
63
 100 DATA 31,32,255,255,255,255,
0,0
 110 DATA 128,248,192,254,1,249,
2,254
 120 DATA 0,16,255,255,255,255,6
4,63
 130 DATA 0,15,18,18,127,255,255
,96
 140 DATA 0,128,64,64,224,240,24
0,96
 150 DATA 0,27,7,15,15,7,27,0
 160 DATA 0,216,224,248,248,224,
216,0
 170 DATA 15,8,11,10,10,10,10,11
 180 DATA 8,8,8,11,10,11,8,31
 190 DATA 254,2,186,170,170,170,
170,186
 200 DATA 2,234,2,186,170,186,2,
255
 210 DATA 153,189,189,126,126,12
6,60,195
 220 BORDER 1: PAPER 1: INK 7: C
LS
 230 GO SUB 1250
 240 PRINT INK 7; PAPER 1;AT 1,2
6;"000000"
 250 LET hi=0
 260 LET a$="dfd    fdf        dfdf
     df    df"
 270 LET b$="ijijij    ijij      i
jij       ij "
 280 LET c$="fdfd          dfdfdf
    dfdf     "
 290 LET d$="  cecece        cece
cecece     ce"
 300 LET e$=" ghgh      ghghgh
ghgh      gh "
 310 LET f$="abab      ab  abab
   ababab    "
 340 LET sc=0: PRINT INK 7; PAPE
R 1;AT 1,0;"000000 o o o o o"
 350 LET L=5
 360 LET E=0: LET h=0: PRINT INK
7; PAPER 1;AT 1,18;"DAY "
 370 LET g$="
          "
```

770 – 840 Checks which house you've landed in and puts door in the right place.
850 – 860 If all frogs home give bonuses, else continue.
900 – 970 Plays end of game tune and waits for a key to be pressed.
980 – 990 Increase high-score and start again.
1007 – 1013 Checks to see if frog has landed in water.
1015 – 1021 Checks to see if frog has been hit.
1060 – 1160 Move co-ordinates of frog.
1260 – 1320 Self explanatory.
1330 Prints on line below normal display area.
1340 – 1370 Self explanatory.

VARIABLE	MEANING	VARIABLE	MEANING
hi	hi-score	s	highest line frog has reached
sc	score	K	code of last key pressed
L	lives left	Y	vertical position of frog
E	days passed	X	horizontal position of frog
h	number of frogs home		
p	pitch of notes		
d	duration of notes		

The letters in lines 260 – 340, 630 and 820 should be entered in graphics mode. Lines 8000 – 9010 are not necessary to play the game.

Mark Watkinson

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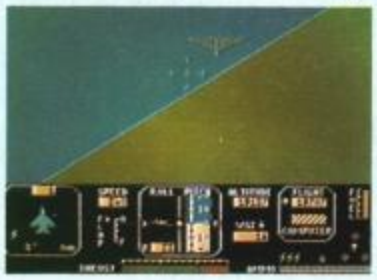

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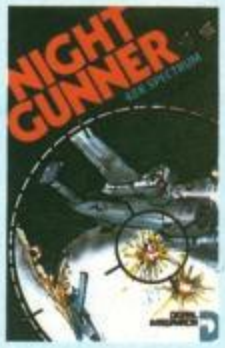

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```
 380 FOR a=3 TO 6: PRINT PAPER 4
;g$: NEXT a
 390 FOR a=4 TO 5: RESTORE 420:
FOR b=1 TO 5: READ c: PRINT INK
1; PAPER 1;AT a,c;"XXX": NEXT b:
 NEXT a
 400 FOR a=6 TO 12: PRINT PAPER
5;AT a,0;g$: NEXT a
 410 PRINT PAPER 4;g$
 420 FOR A=1 TO 7: PRINT PAPER 0
;G$: NEXT A
 430 PRINT PAPER 4;G$
 440 DATA 1,8,17,22,26
 450 FOR a=1 TO 14
 460 READ D,P
 470 BEEP D/3,P
 480 NEXT A
 490 DATA 2,0,1,5,1,5,1,0,1,0,1,
2,1,2,1,-3,1,-3,1,-2,1,-2,1,0,1,
0,2,5
 495 PAPER 8
 500 LET s=21: LET x=10: LET y=2
1
 510 LET a$=a$(2 TO )+a$(1): LET
 c$=c$(2 TO )+c$(1): LET e$=e$(2
 TO )+e$(1): LET b$=b$(32)+b$: L
ET d$=d$(32)+d$: LET f$=f$(32)+f
$
 550 LET k=0
 570 IF INKEY$<>"" THEN LET k=PE
EK 23560
 590 IF k<>0 AND k>52 AND k<57 T
HEN PRINT AT Y,X;" ": BEEP .01,2
0
 595 PAPER 5: PRINT INK 4;AT 7,0
;a$; INK 1;AT 9,0;b$; INK 4;AT 1
1,0;c$: PAPER 0: PRINT INK 5;AT
15,0;d$; INK 2;AT 17,0;e$; INK 7
;AT 19,0;f$
 596 PAPER 8
 600 IF k<>0 AND k>52 AND k<57 T
HEN GO SUB 20*k
 620 IF y<7 THEN GO TO 750
 630 PRINT INK 6;AT y,x;"o"
 640 GO SUB 1000+y
 650 IF y<s THEN LET s=y: LET sc
=sc+5
 660 IF E<80 THEN LET E=E+0.5: P
RINT AT 1,22;INT E;" "
 700 PRINT AT 1,6-LEN STR$ sc;sc
 710 IF Y=9 THEN LET X=X+1
 720 IF Y=7 OR Y=11 THEN LET X=X
-1
 730 IF Y<13 AND X=-1 OR X=32 TH
EN GO TO 755
 740 GO TO 510
 750 IF SCREEN$ (y,x)="X" THEN G
O TO 770
 755 BEEP 1,-10: IF L>0 THEN LET
 L=L-1: PRINT AT 1,7+L*2;" ": GO
TO 500
 760 IF 1=0 THEN GO TO 900
 770 LET Z=1
 780 IF x>7 THEN LET Z=8
 790 IF x>16 THEN LET Z=17
 800 IF x>21 THEN LET Z=22
 810 IF x>25 THEN LET Z=26
 820 PRINT INK 0; PAPER 4;AT 4,Z
;" km";AT 5,Z;" ln": LET SC=SC+2
5
 830 BEEP .25,8: BEEP .25,0: BEE
P .25,8
 840 LET h=h+1
 850 IF h=5 THEN LET sc=100+sc+1
0*(80-E): GO TO 360
 860 GO TO 500
 900 PRINT AT 9,0; FLASH 1; INK
1; PAPER 4;"Game Over  Any Key T
o Play Again"
 910 FOR a=1 TO 10
 920 READ D,P
 930 BEEP D/5,P
 940 NEXT a
 950 DATA 3,7,1,8,2,7,2,5,2,3,2,
2,4,0
 960 DATA 4,0,4,-5,8,0
 970 IF INKEY$="" THEN GO TO 970
 980 IF sc>hi THEN LET hi=sc: PA
PER 1: INK 7: PRINT AT 1,32-LEN
STR$ hi;hi
 990 GO TO 340
1007 IF a$(x+1)=" " THEN GO TO 7
55
1008 RETURN
1009 IF b$(x+1)=" " THEN GO TO 7
55
1010 RETURN
1011 IF c$(x+1)=" " THEN GO TO 7
55
1013 RETURN
1015 IF d$(x+1)<>" " THEN GO TO
755
1016 RETURN
1017 IF e$(x+1)<>" " THEN GO TO
755
1018 RETURN
1019 IF f$(x+1)<>" " THEN GO TO
755
1021 RETURN
1060 IF x>0 THEN LET X=X-2
1065 RETURN
1080 IF y<20 THEN LET y=y+2
1085 RETURN
1100 LET y=y-2
1105 RETURN
1120 IF x<30 THEN LET x=x+2
1160 RETURN
1250 DIM A$(362)
1260 LET A$="    In this version
of the arcade*game 'FROGGER', yo
u play Phileas*Frog and his frie
nds.Five of you*must reach home
in under 80 days*You must first
get safely across*Riverside Rd,t
hen over the river*on logs and t
he backs of turtles*You get 5 pt
s for every new lane*passed,25 p
ts for each frog home*plus a bon
us of 10 pts for every*day under
 80.Keys 5-8 move frog."
1270 LET y=0: LET x=0
1280 FOR a=1 TO 362
1285 IF a$(a)="*" THEN LET x=x+2
: LET y=0: NEXT a
1290 BEEP .01,10: PRINT AT x,y;a
$(a)
1300 LET y=y+1
1320 NEXT a
1330 PRINT #1;"          ANY KEY TO C
ONTINUE"
1340 IF INKEY$="" THEN GO TO 134
0
1350 CLS
1360 DIM a$(32): DIM b$(32): DIM
 c$(32): DIM d$(32): DIM e$(32):
 DIM f$(32)
7999 RETURN
```

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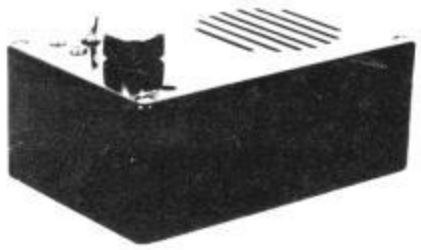

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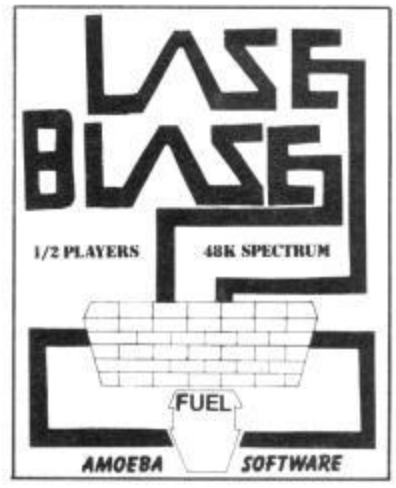

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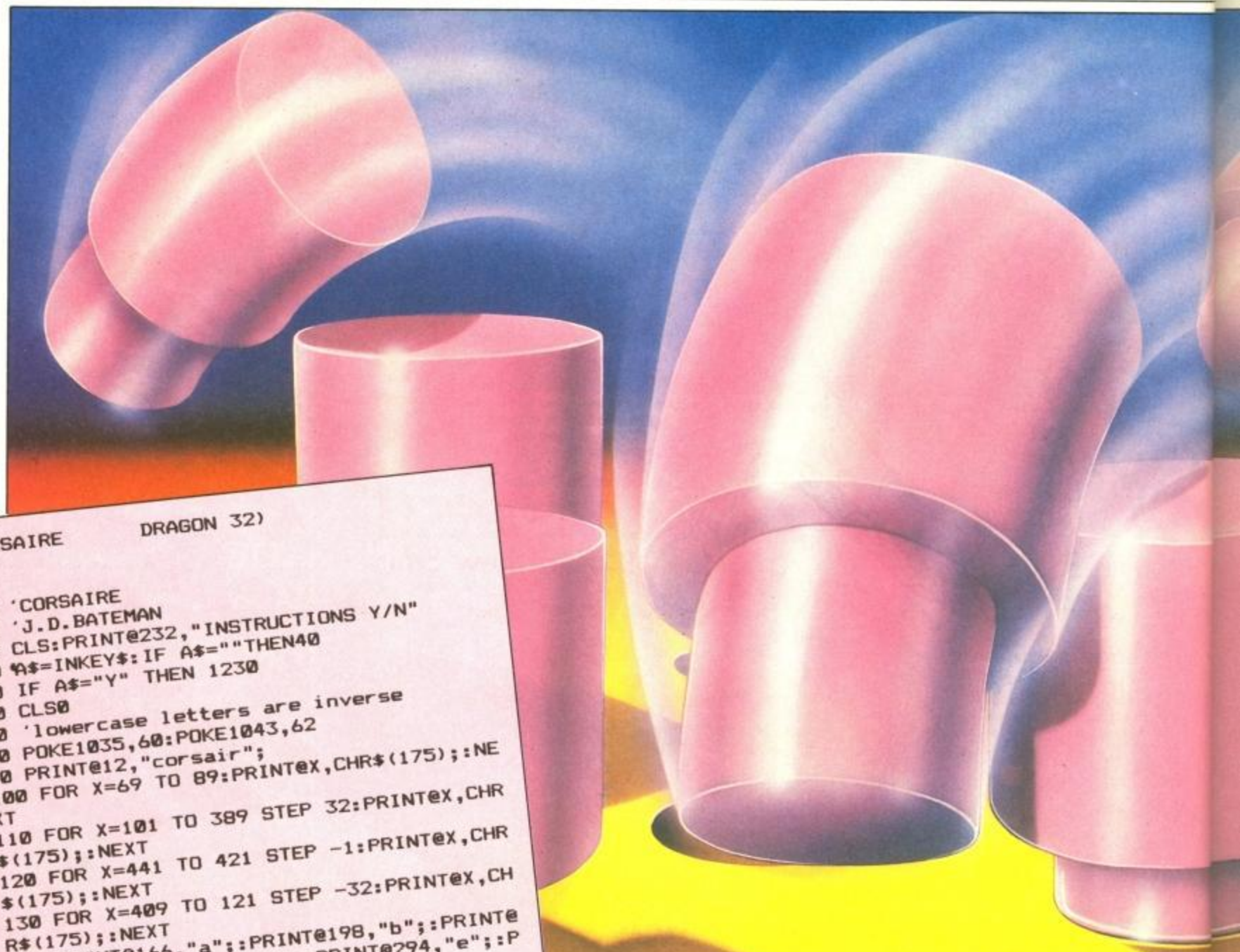

CORSAIRE DRAGON 32)

```
10 'CORSAIRE
20 'J.D.BATEMAN
30 CLS:PRINT@232,"INSTRUCTIONS Y/N"
40 A$=INKEY$:IF A$=""THEN40
50 IF A$="Y" THEN 1230
60 CLS0
70 'lowercase letters are inverse
80 POKE1035,60:POKE1043,62
90 PRINT@12,"corsair";
100 FOR X=69 TO 89:PRINT@X,CHR$(175);:NE
XT
110 FOR X=101 TO 389 STEP 32:PRINT@X,CHR
$(175);:NEXT
120 FOR X=441 TO 421 STEP -1:PRINT@X,CHR
$(175);:NEXT
130 FOR X=409 TO 121 STEP -32:PRINT@X,CH
R$(175);:NEXT
140 PRINT@166,"a";:PRINT@198,"b";:PRINT@
230,"c";:PRINT@262,"d";:PRINT@294,"e";:P
RINT@326,"f";:PRINT@358,"g";
150 POKE1129,49:POKE1131,50:POKE1133,51:
POKE1135,52:POKE1137,53:POKE1139,54:POKE
1141,55
160 V=37
170 PRINT@219,"pegs";:PRINT@251,"left";
180 R=RND(7)
190 IF R=1 THEN J=173
200 IF R=2 THEN J=177
210 IF R=3 THEN J=245
220 IF R=4 THEN J=309
230 IF R=5 THEN J=365
240 IF R=6 THEN J=297
250 IF R=7 THEN J=233
260 IF J=233 THEN K=309
270 IF J=297 THEN K=245
280 IF J=365 THEN K=177
290 IF J=245 THEN K=297
300 IF J=177 THEN K=365
310 IF J=173 THEN K=369
320 IF J=309 THEN K=233
330 DIMA(37)
340 FOR I=1 TO 37
350 READA(I)
360 PRINT@A(I),CHR$(204);
370 NEXTI
380 PRINT@J,CHR$(252);:V=V-1
390 PRINT@K,CHR$(188);:FOR D=0 TO 888:NE
XT:PRINT@K,CHR$(204);
```

PROGRAM DESCRIPTION

Lines 80 – 430 Set up board
450 – 830 Identify piece to be moved
850 – 890 Direction of move
990 – 1200 Show a solution
1230 – 1370 Instructions
1380 – 1540 Check validity of move
1550 – 1620 Check validity of final move

The PEG, HOLE, and MOVE positions are held in the various data lines.
V is the number of pegs.
R is Random and used to give J (start) and K (finish) locations.
SP is the Screen position of pegs.
L, M and N are positions of an attempted move.

FOR THE DRAGON 32

CORS

N • DRAGON • DRAGON

```
400 PRINT@187,V;:IF V=1 THEN 1550
410 PRINT@453,"move";
420 INPUTP$
430 FOR X=453 TO 479:PRINT@X,CHR$(224);:
NEXT
440 SP=0
450 IF P$="Q" THEN 920
460 IF P$="C1" OR P$="1C" THEN SP=233
470 IF P$="D1" OR P$="1D" THEN SP=265
480 IF P$="E1" OR P$="1E" THEN SP=297
490 IF P$="B2" OR P$="2B" THEN SP=203
500 IF P$="C2" OR P$="2C" THEN SP=235
510 IF P$="D2" OR P$="2D" THEN SP=267
520 IF P$="E2" OR P$="2E" THEN SP=299
530 IF P$="F2" OR P$="2F" THEN SP=331
540 IF P$="A3" OR P$="3A" THEN SP=173
550 IF P$="B3" OR P$="3B" THEN SP=205
560 IF P$="C3" OR P$="3C" THEN SP=237
570 IF P$="D3" OR P$="3D" THEN SP=269
580 IF P$="E3" OR P$="3E" THEN SP=301
590 IF P$="F3" OR P$="3F" THEN SP=333
600 IF P$="G3" OR P$="3G" THEN SP=365
610 IF P$="A4" OR P$="4A" THEN SP=175
620 IF P$="B4" OR P$="4B" THEN SP=207
630 IF P$="C4" OR P$="4C" THEN SP=239
640 IF P$="D4" OR P$="4D" THEN SP=271
650 IF P$="E4" OR P$="4E" THEN SP=303
660 IF P$="F4" OR P$="4F" THEN SP=335
670 IF P$="G4" OR P$="4G" THEN SP=367
680 IF P$="A5" OR P$="5A" THEN SP=177
690 IF P$="B5" OR P$="5B" THEN SP=209
700 IF P$="C5" OR P$="5C" THEN SP=241
710 IF P$="D5" OR P$="5D" THEN SP=273
720 IF P$="E5" OR P$="5E" THEN SP=305
730 IF P$="F5" OR P$="5F" THEN SP=337
740 IF P$="G5" OR P$="5G" THEN SP=369
750 IF P$="B6" OR P$="6B" THEN SP=211
760 IF P$="C6" OR P$="6C" THEN SP=243
770 IF P$="D6" OR P$="6D" THEN SP=275
780 IF P$="E6" OR P$="6E" THEN SP=307
790 IF P$="F6" OR P$="6F" THEN SP=339
800 IF P$="C7" OR P$="7C" THEN SP=245
810 IF P$="D7" OR P$="7D" THEN SP=277
820 IF P$="E7" OR P$="7E" THEN SP=309
830 IF SP=0 THEN 1540
840 PRINT@463,"press";:PRINT@468,CHR$(22
4);:PRINT@469,"arrow";:FOR X=474 TO 479:
PRINT@X,CHR$(224);:NEXT
850 A$=INKEY$:IF A$="" THEN 850
860 IF A$=CHR$(8) THEN GOSUB 1380
870 IF A$=CHR$(10) THEN GOSUB 1420
880 IF A$=CHR$(94) THEN GOSUB 1460
890 IF A$=CHR$(9) THEN GOSUB 1500
900 FOR X=448 TO 479:PRINT@X,CHR$(224);:
NEXT
910 GOTO 400
920 FOR B=448 TO 479:PRINT@B,CHR$(224);:
NEXT
```

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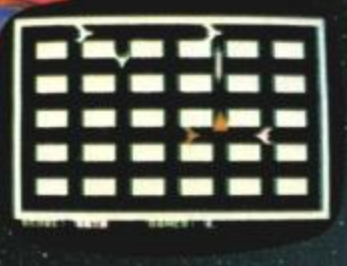

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```
930 PRINT@458,"solution y n";:POKE1490,3
2:POKE1492,47
940 A$=INKEY$:IF A$="" THEN 940
950 IF A$="Y" THEN 990
960 FOR B=458 TO 469:PRINT@B,CHR$(224);:
NEXT
970 GOTO1190
980 DATA173,175,177,203,205,207,209,211,
233,235,237,239,241,243,245,265,267,269,
271,273,275,277,297,299,301,303,305,307,
309,331,333,335,337,339,365,367,369
990 POKE1480,42:POKE1481,42:POKE1482,42:
POKE1491,42:POKE1492,42:POKE1493,42:PRIN
T@459,"solution";
1000 B$=CHR$(224)+CHR$(224)+CHR$(224)+CH
R$(224)
1010 PRINT@187,B$;:PRINT@219,B$;:PRINT@2
51,B$;
1020 RESTORE
1030 DIMB(37)
1040 FOR I=1 TO 37
1050 READ B(I)
1060 PRINT@B(I),CHR$(204);
1070 NEXT I
1080 FOR D=0 TO 100:NEXT D
1090 PRINT@369,CHR$(252);
1100 FORX=1 TO 15:PRINT@173,CHR$(188);:F
OR D=0 TO 80:NEXTD:PRINT@173,CHR$(204);:
FOR D=0 TO 80:NEXTD:NEXTX
1110 DIMX(35):DIMY(35):DIMZ(35)
1120 FOR I=1 TO 35
1130 READX(I),Y(I),Z(I)
1140 PRINT@X(I),CHR$(188);:FOR D=0 TO 90
:NEXT:PRINT@Y(I),CHR$(188);:FOR D=0 TO 9
0:NEXT:PRINT@Z(I),CHR$(188);:FOR D=0 TO
200:NEXT
```

```
1150 PRINT@X(I),CHR$(252);:PRINT@Y(I),CH
R$(204);:PRINT@Z(I),CHR$(252);
1160 FOR D=1 TO 1660:NEXT
1170 NEXTI
1180 FOR D=0 TO 1000:NEXT
1190 '<C> J.D.B. 21/1/84 <C>
1200 GOTO1650
1210 DATA365,369,367,303,367,335,301,365
,333,297,301,299,339,335,337,273,337,305
,369,305,337,209,273,241,273,337,305,269
,333,301,365,301,333,205,269,237,269,333
,301,309,305,307,277,273,275,245,241,243
,265,269,267,233,237,235
1220 DATA273,209,241,209,205,207,203,207
,205,269,205,237,173,237,205,337,273,305
,273,269,271,269,205,237,205,209,207,367
,303,335,331,335,333,335,271,303,271,207
,239,175,239,207,211,207,209,239,175,207
,177,173,175
1230 PRINT:PRINT"AT THE START OF THE GAM
E ALL THE HOLES ARE FILLED.":PRINT:PRINT
"ONE PEG AT A CORNER OF THE BOARDIS REMO
VED (E.G.1C,5A,7E).":PRINT:PRINT" THE OB
JECT OF THIS GAME IS TO  REMOVE ALL THE
PEGS EXCEPT ONE."
1240 PRINT" THIS PEG SHOULD END UP IN TH
E  CORNER HOLE OPPOSITE THE HOLE  FROM
WHICH PLAY COMMENCED.":PRINT"(E.G. IF PLA
Y STARTED AT 5A THEN THE LAST PEG SHOULD
BE IN 3G).":PRINT:PRINT"  press any ke
y to continue"
1250 A$=INKEY$:IF A$=""THEN 1250
1260 CLS:PRINT:PRINT" EACH PIECE IS JUMP
ED OVER AN  ADJACENT ONE INTO AN EMPTY
HOLE IMMEDIATELY  BEYOND THE  PIECE  BEI
NG JUMPED.THE PIECE THAT HAS BEEN JUMPED
OVER IS REMOVED FROMTHE BOARD."
```

```
1270 PRINT:PRINT"PERMITTED MOVES ARE UP,
DOWN,LEFTOR RIGHT."
1280 PRINT:PRINT"  press any key to con
tinue"
1290 A$=INKEY$:IF A$=""THEN 1290
1300 CLS:PRINT"  to make a move":PRINT"
ENTER THE LOCATION OF THE PIECEAND THEN
PRESS THE APPROPRIATE  ARROW KEY."
1310 PRINT"  for example":PRINT"  YOU M
AY WISH TO MOVE THE PIECEFROM G3 OVER TH
E PIECE IN G4 TO AN EMPTY SPACE AT G5."
1320 PRINT" TYPE IN G3 or 3G PRESS <ENTE
R>,THEN PRESS THE RIGHT ARROW KEY."
1330 PRINT"IF YOU CAN MOVE NO FURTHUR PR
ESSQ THEN <ENTER> TO QUIT.":PRINT:PRINT"
  press any key to continue"
1340 A$=INKEY$:IF A$=""THEN1340
1350 CLS:PRINT@193,"A CHANCE TO VIEW A S
OLUTION IS OFFERED AFTER PLAY IS FINISHE
D.":PRINT:PRINT:PRINT"  press any key t
o continue"
1360 A$=INKEY$:IF A$=""THEN 1360
1370 GOTO 60
1380 L=PEEK(1024+SP):M=PEEK(1022+SP):N=P
EEK(1020+SP)
1390 IF L=204 AND M=204 AND N=252 THEN 1
410
1400 GOTO1540
1410 PRINT@SP,CHR$(252);:PRINT@SP-2,CHR$
(252);:PRINT@SP-4,CHR$(204);:V=V-1:RETUR
N
1420 L=PEEK(1024+SP):M=PEEK(1056+SP):N=P
EEK(1088+SP)
1430 IF L=204 AND M=204 AND N=252 THEN14
50
1440 GOTO 1540
1450 PRINT@SP,CHR$(252);:PRINT@SP+32,CHR
$(252);:PRINT@SP+64,CHR$(204);:V=V-1:RET
```

```
URN
1460 L=PEEK(1024+SP):M=PEEK(992+SP):N=PE
EK(960+SP)
1470 IF L=204 AND M=204 AND N=252 THEN 1
490
1480 GOTO1540
1490 PRINT@SP,CHR$(252);:PRINT@SP-32,CHR
$(252);:PRINT@SP-64,CHR$(204);:V=V-1:RET
URN
1500 L=PEEK(1024+SP):M=PEEK(1026+SP):N=P
EEK(1028+SP)
1510 IF L=204 AND M=204 AND N=252 THEN 1
530
1520 GOTO1540
1530 PRINT@SP,CHR$(252);:PRINT@SP+2,CHR$
(252);:PRINT@SP+4,CHR$(204);:V=V-1:RETUR
N
1540 SOUND50,5:GOTO 900
1550 IF J=173 THEN T=PEEK(1393)
1560 IF J=177 THEN T=PEEK(1389)
1570 IF J=245 THEN T=PEEK(1321)
1580 IF J=309 THEN T=PEEK(1257)
1590 IF J=365 THEN T=PEEK(1201)
1600 IF J=297 THEN T=PEEK(1269)
1610 IF J=233 THEN T=PEEK(1333)
1620 IF T=204 THEN 1640
1630 PRINT@449,"YOU HAVE GONE WRONG SOME
WHERE!":FOR D=0 TO 4250:NEXT:GOTO 1650
1640 PRINT@448,"CONGRATULATIONS YOU GOT
IT RIGHT";:FOR D=0 TO 5000:NEXT
1650 CLS:PRINT@201,"TRY AGAIN Y/N ?"
1660 A$=INKEY$:IF A$="" THEN 1660
1670 IF A$<>"Y" THEN 1690
1680 CLS:PRINT@224," TYPE RUN AND <ENTER
> TO PLAY."
1690 END
```

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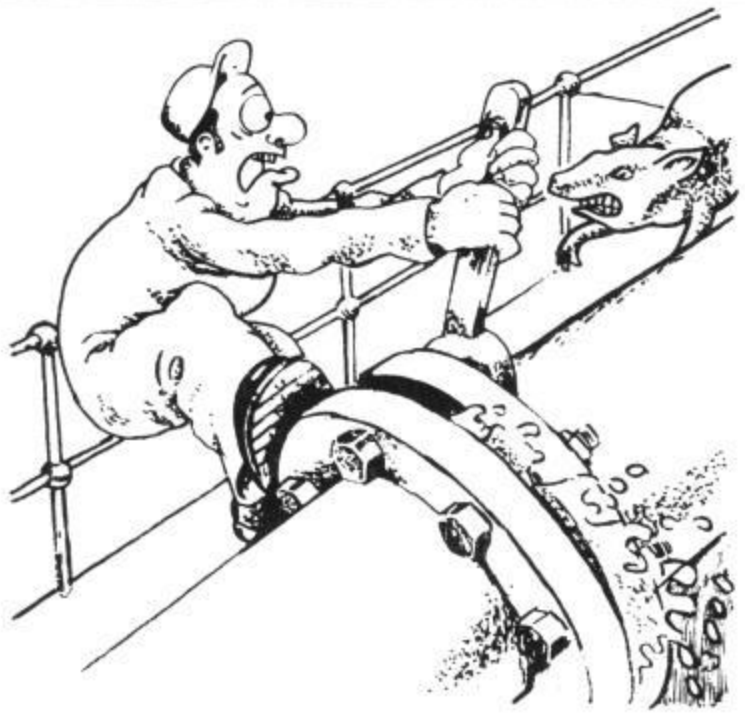

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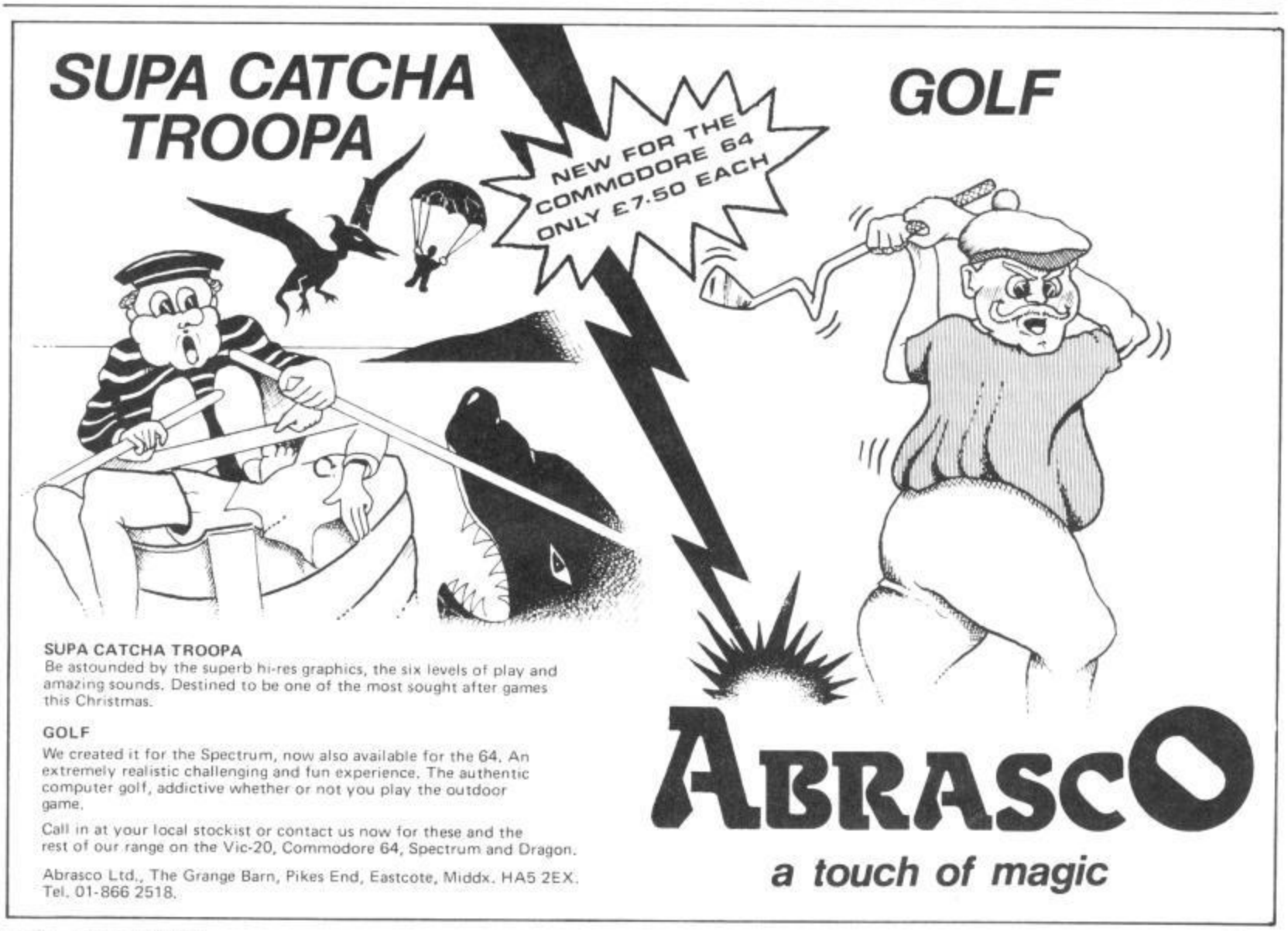

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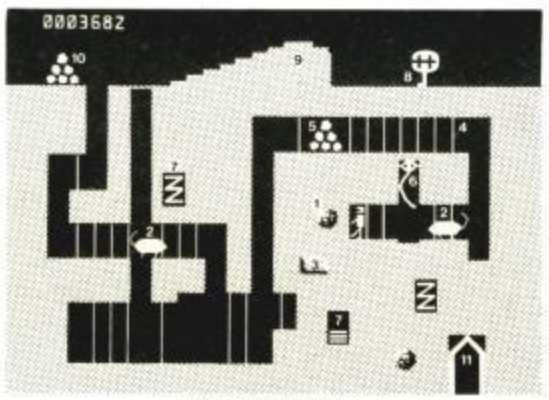

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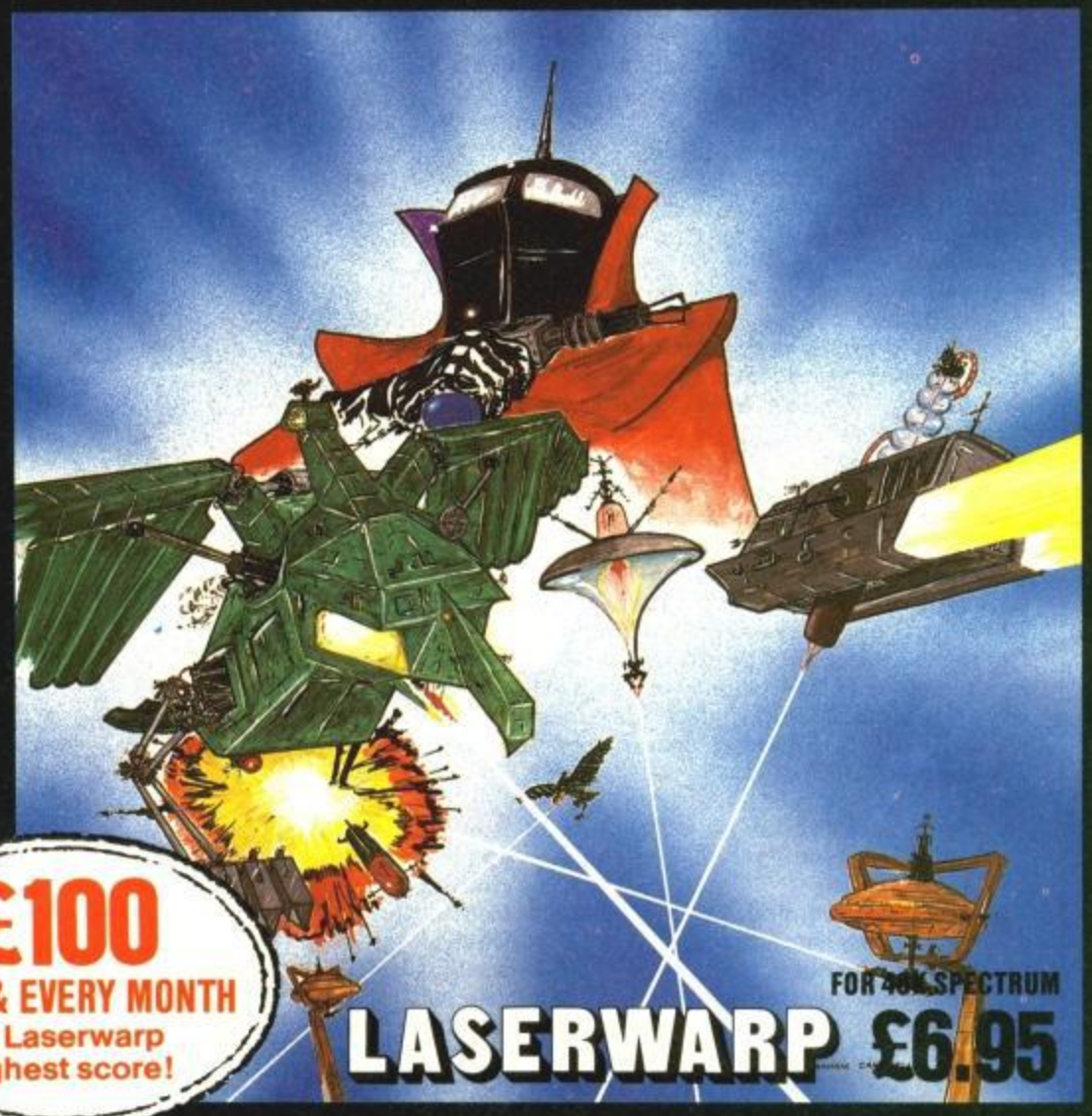

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PROGRAM DESCRIPTION

The object of the game is to score as many points as possible before you lose your nine lives. You score points by catching clothes which fall from the washing line. If you don't catch the item of clothing you will lose a life. The game will end when you lose all your lives.

There are different types of clothes and each type is worth a different amount of points.

At the end of the game you will be told if you have a high score or not. If you do then that score will be recorded.

To move your basket you use 'J' to move left and 'L' to move right.

The loader program listed here sets up the high resolution graphics. You must enter and save both programs separately. When you're certain they're completely accurate, load and run the loader program first. After a while it should come up with a 'Ready' message. Then you can load the main program.

You may find some of the graphics characters in the listings hard to read. So after each line containing such characters we have added an explanatory line showing which keys you need to press. Each separate sequence of graphics characters has a corresponding explanatory sequence enclosed in round brackets. For example in line 10 below, there is a reverse heart, followed by four reverse Qs. These are obtained by pressing the {CLR} key followed by the cursor {CRSR} down key pressed four times. We have indicated this after the line by writing ({CLR}{4xCD}). Similarly cursor up, left and right are abbreviated CU, CL, CR.

Lines

9–25	Set up variables	1000–1030	Routine to set up position of clothing
30–100	Print screen layout	2000–2060	Routine for when all washing has dropped
110–130	Print random grass characters	3000–3030	Routine when washing hits the mud
140–160	Print out random clothes on top line	5000–5130	End routine
170	Call machine code routines		
180–240	Move item of clothing		

The Loader Program (listed as Program 1) sets up the user-defined characters and machine code.

```
1 REM*****************
2 REM*    MUD BATH    *
3 REM*     LOADER     *
4 REM* (C)K.OSBORNE  *
5 REM* 18 SEPT 1983  *
6 REM*****************
10 PRINT"■■■■■■■DEFINING  CHARACTERS"                    10({CLR}{4xCD}) ({BLK})
15 PRINT"■■■■■■■
```

• VIC 20 • VIC 20 • VIC 20

```
1170 DATA0,0,12,14,159,255,255,255,195,219,36,90,90,36,219,195
1180 DATA247,247,247,247,247,247,247,247,0,36,40,26,10,44,24,0
1190 DATA0,0,40,72,82,60,16,0,0,255,170,255,85,255,0,0
1200 DATA8,16,8,255,255,8,8,8,0,2,4,8,16,32,64,0
1210 DATA0,60,70,74,82,98,60,0,0,8,24,40,8,8,62,0
1220 DATA0,60,66,2,60,64,126,0,0,60,66,28,2,66,60,0
1230 DATA0,12,20,36,126,4,4,0,0,126,64,124,2,66,60,0
1240 DATA0,60,64,124,66,66,60,0,0,126,4,8,16,32,64,0
1250 DATA0,60,66,60,66,66,60,0,0,60,66,66,62,2,60,0
1260 DATA0,0,8,0,0,8,0,0,0,0,8,8,16
1270 DATA14,24,48,96,48,24,14,0,0,0,126,0,126,0,0,0
1280 DATA0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
1290 DATA166,197,224,64,240,20,169,29,164,0,153,74,31,169,2,153,74,151,224,20,24
0,58
1300 DATA224,21,240,63,169,31,164,0,153,74,31,169,4,153,74,151,185,52,31,201,32,
240
1310 DATA53,162,128,142,10,144,160,128,234,234,136,208,251,224,0,240,4,232,76,47
,27
1320 DATA56,233,32,170,32,99,27,202,208,250,169,1,133,1,96,192,4,240,2,198,0
1325 DATA76,26,27,192,17,240
1330 DATA2,230,0,76,26,27,96,173,8,30,201,57,240,4,238,8,30,96,169,48,141,8,30,1
73
1340 DATA7,30,201,57,240,4,238,7,30,96,169,48,141,7,30,173,6,30,201,57,240,4,238
,6
1350 DATA30,96,169,48,141,6,30,96,173,205,31,133,2,160,20,185,184,31,153,185,31,
192,0
1360 DATA240,4,136,76,155,27,165,2,141,184,31,32,208,27,160,5,153,5,150,136,208,
250,32
1370 DATA208,27,160,5,153,16,150,136,208,250,32,208,27,160,8,153,239,151,136,208
,250,96
1380 DATA173,4,144,41,7,201,1,240,247,96
```

Jane Eccles

UD BATH

VIC 20 • VIC 20 • VIC 20

```
0 REM*****************
1 REM*    MUD BATH    *
2 REM* MAIN PROGRAM *
3 REM*(C)  K.OSBORNE*
4 REM*  WRITTEN ON  *
5 REM* 18 SEPT 1983 *
6 REM*****************
9 HI$="00000":PRINTCHR$(8)
10 V=36878:S1=V-4:S2=V-3:PRINT"■":POKEV-9,255:POKEV,15:POKEV+1,28:CO=30720:A=768
0:FL=0  10({CLR})
20 SP=32:IN=22:SH=1:PO$="[■■■
```

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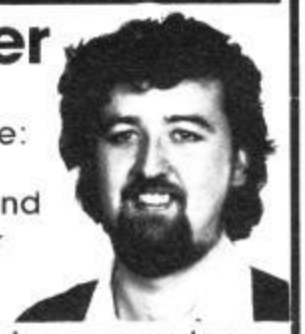

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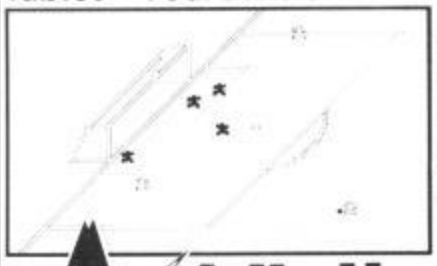

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* ZX81 Chart
Home Computing Weekly
1.8.83 and 1.11.83.

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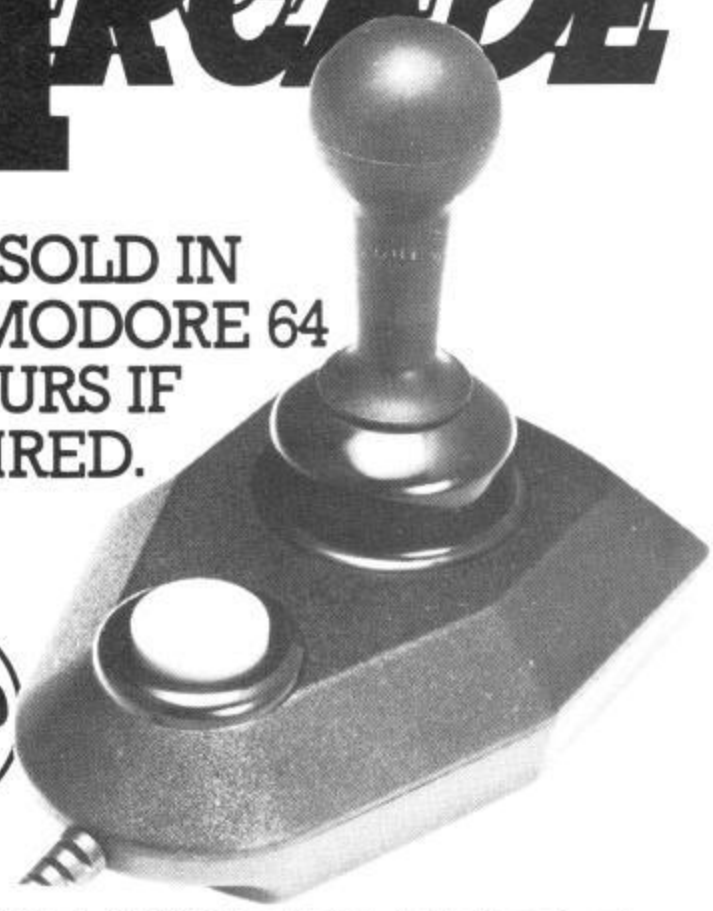

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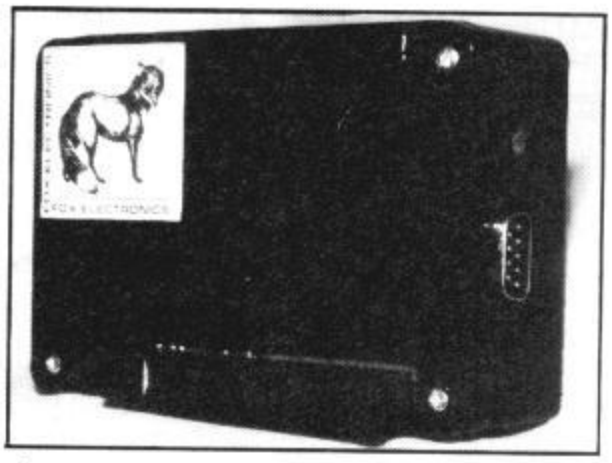

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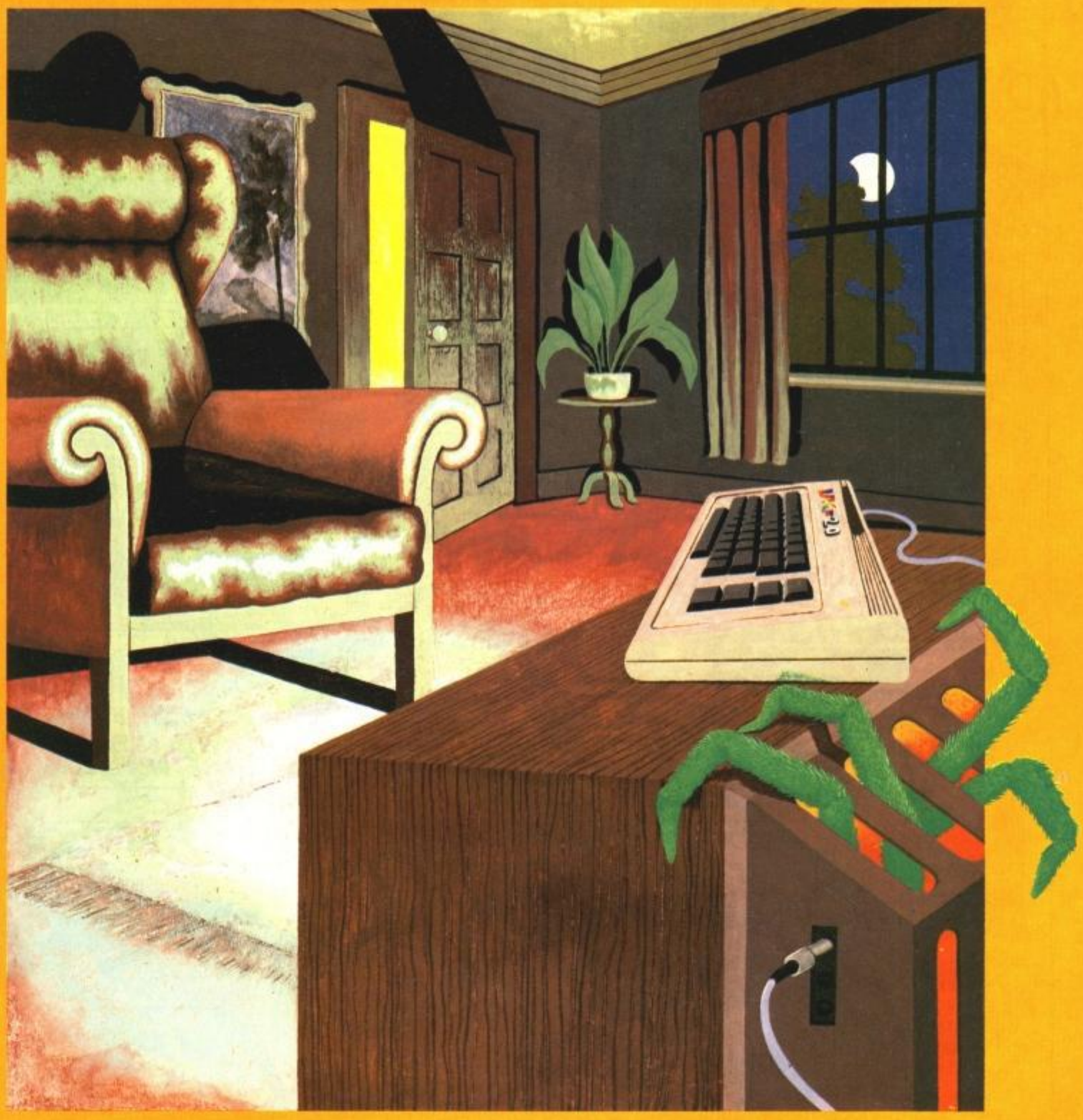

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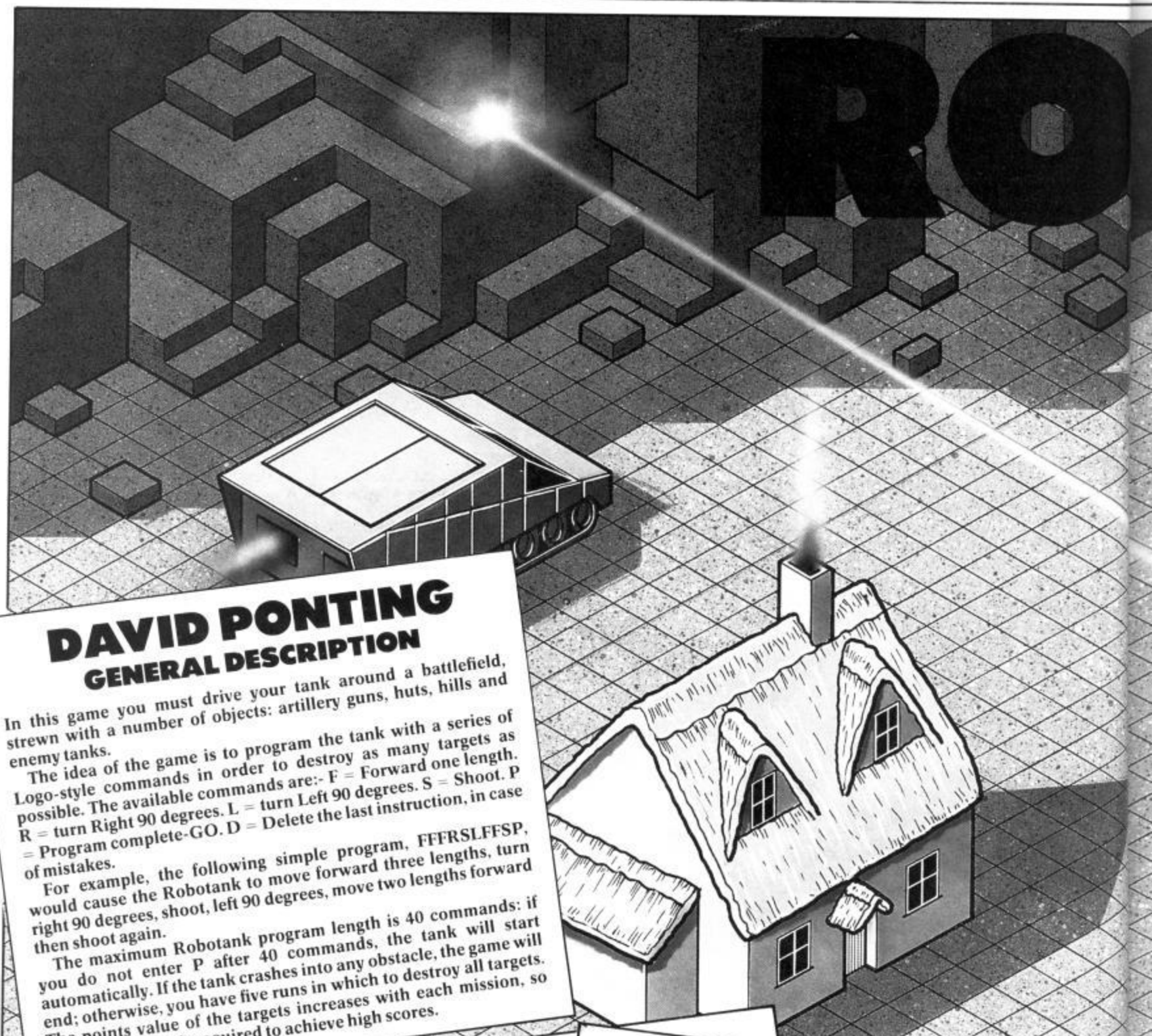
DORE 64 • COMMODOR



DAVID PONTING

GENERAL DESCRIPTION

In this game you must drive your tank around a battlefield, strewn with a number of objects: artillery guns, huts, hills and enemy tanks.

The idea of the game is to program the tank with a series of Logo-style commands in order to destroy as many targets as possible. The available commands are:- F = Forward one length. R = turn Right 90 degrees. L = turn Left 90 degrees. S = Shoot. P = Program complete-GO. D = Delete the last instruction, in case of mistakes.

For example, the following simple program, FFFRSLFFSP, would cause the Robotank to move forward three lengths, turn right 90 degrees, shoot, left 90 degrees, move two lengths forward then shoot again.

The maximum Robotank program length is 40 commands: if you do not enter P after 40 commands, the tank will start automatically. If the tank crashes into any obstacle, the game will end; otherwise, you have five runs in which to destroy all targets. The points value of the targets increases with each mission, so careful planning is required to achieve high scores.

```
1 REM ********************************
2 REM *                              *
3 REM *    ROBOT  TANK               *
4 REM *                              *
5 REM * COMPUTER  : COMMODORE 64     *
6 REM * LANGUAGE  : BASIC 2          *
7 REM * CONVERTER : DAVE PONTING     *
8 REM *   DATE    : 23-10-83         *
9 REM *                              *
10 REM ********************************
12 PRINT"■■■■■■■■■■ROBOT TANK":GOSUB8000
15 POKE52,48:POKE56,48:CLR
20 GOSUB7000
30 POKE53280,3:POKE53281,7
100 P1=2023:P2=56295
102 DIMP$(42)
105 PRINT"■■■■PRESS ANY KEY TO START THE GAME":GOTO107
106 PRINT"■■■■PRESS ANY KEY TO START THE GAME":FORW=1TO50:NEXTW
                                    ":FORW=1TO50:NEXTW:IFA$=""THEN106
107 GETA$
108 PRINT"■■■■
```

DETAILED DESCRIPTION

Lines 1-108 set up the variables and set up the variables and set the screen colours. 109-130 put 3 artillery guns on the screen. 135-155 put 5 tanks on the screen. 160-180 put hills on the screen. 182-190 put 10 huts on the screen. 195-198 put your tank on the screen. 200-260 input the list of 40 commands with a 'beep' for each command. 290-705 decode the commands and carry them out. 510-670 shoot routine. 706-720 check for the end of the game. 800-860 explosion routine for the shell. 1500-1560 explosion routine for your tank. 2000-2060 the tank has crashed: game over routine. 7000-7900 set up the graphics characters and clear the sound registers. 8000-8200 instruction routine. 10000-10050 DATA for custom graphics.

RE 64 • COMMODORE 64

BOTANIK

```
109 PRINT"■"
110 FORI=1TO8
111 C=27:X=0:Y=0:SC=0:TM=0:MS=1
115 X=INT(RND(1)*38)+1:Y=INT(RND(1)*22)+1
120 IFPEEK(P1+X-40*Y)<>32THEN115
125 POKEP1+X-40*Y,33:POKEP2+X-40*Y,2
130 NEXTI
135 FORI=1TO5
140 X=INT(RND(1)*38)+1:Y=INT(RND(1)*22)+1
145 IFPEEK(P1+X-40*Y)<>32THEN140
150 POKEP1+X-40*Y,34:POKEP2+X-40*Y,0
155 NEXTI
160 FORI=1TO20
165 X=INT(RND(1)*37)+2:Y=INT(RND(1)*21)+2
170 IFPEEK(P1+X-40*Y)<>32THEN165
175 POKEP1+X-40*Y,35:POKEP2+X-40*Y,5
180 NEXTI
182 FORI=1TO10
184 X=INT(RND(1)*38)+1:Y=INT(RND(1)*22)
186 IFPEEK(P1+X-40*Y)<>32THEN184
188 POKEP1+X-40*Y,36:POKEP2+X-40*Y,0
190 NEXTI
195 X=1:Y=1
```

```
196 POKEP1+X-40*Y,C:POKEP2+X-40*Y,6
198 X1=X:Y1=Y
200 FORI=1TO41
210 GETA$:IFA$="F"ORA$="S"ORA$="L"ORA$="R"ORA$=
    "D"ORA$="P"THEN220
215 GOTO210
220 IFA$="P"THEN290
225 POKE54296,10
226 POKES0+4,17:FORT=1TO50:NEXTT
227 POKES0+4,16:REM TURN OFF SOUND REGISTER AS WELL
230 IFA$="D"THENI=I-1:PRINT"■"TAB(I-1)" ":GOTO210
240 P$(I)=A$
250 PRINT"■"TAB(I-1)P$(I)
260 NEXTI
290 TM=0
300 FORJ=1TOI-1
301 Z=0
305 IFP$(J)="S"THEN510
310 IFP$(J)="L"THENC=C+1:IFC=31THENC=27
320 IFP$(J)="R"THENC=C-1:IFC=26THENC=30
330 IFP$(J)="F"ANDC=27THENX=X+1:IFX>38THENX=38
340 IFP$(J)="F"ANDC=28THENY=Y+1:IFY>22THENY=22
350 IFP$(J)="F"ANDC=29THENX=X-1:IFX<1THENX=1
360 IFP$(J)="F"ANDC=30THENY=Y-1:IFY<1THENY=1
370 POKEP1+X1-40*Y1,32
375 IFPEEK(P1+X-40*Y)<>32THEN2000
380 POKEP1+X-40*Y,C:POKEP2+X-40*Y,6
400 X1=X:Y1=Y
500 GOTO700
510 IFC<>27THEN550
520 FORX2=X+1TOX+5
525 IFX2>20THEN700
530 Y2=Y:GOSUB800
535 IFZ=1THEN700
540 NEXTX2
545 GOTO700
550 IFC<>28THEN600
570 FORY2=Y+1TOY+5
575 IFY2>16THEN700
580 X2=X:GOSUB800
585 IFZ=1THEN700
590 NEXTY2
595 GOTO700
600 IFC<>29THEN650
610 FORX2=X-1TOX-5STEP-1
615 IFX2<1THEN700
620 Y2=Y:GOSUB800
625 IFZ=1THEN700
630 NEXTX2
640 GOTO700
650 FORY2=Y-1TOY-5STEP-1
655 IFY2<0THEN700
660 X2=X:GOSUB800
665 IFZ=1THEN700
670 NEXTY2
700 PRINT"■■■
```

Program Library

COMMODORE 64 • CO

```
800 PK=PEEK(P1+X2-40*Y2)
802 IFPK=35THENZ=1:GOTO860
805 POKE50+24,15
810 POKEP1+X2-40*Y2,46
820 POKEP2+X2-40*Y2,0
830 POKE50+4,17:FORL=20TO30:POKE50+1,L:NEXTL:POKE50+4,16
840 POKEP1+X2-40*Y2,32
850 REM    POKE54296,0
855 IFPK<>32THEN1500
860 RETURN
1500 POKE50+1,20:POKE50+4,129
1501 TM=TM+1
1505 POKEP1+X2-40*Y2,37
1506 POKEP2+X2-40*Y2,2
1510 FORL=15TO0STEP-1
1520 POKE50+24,L
1530 FORM=1TO100
1540 NEXTM:NEXTL
1550 POKE50+24,0:POKE50+4,0
1551 IFPK=35THENSC=SC+25*TM
```

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3. A copy of the listing – printed, typed or written neatly.
4. A brief description of the game, including any instructions.
5. A brief explanation of the function of each part of the program.
6. A table, giving the meaning of each variable.
7. A self-addressed envelope (if you want the program returned).

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Address ..... Telephone number (if possible) .....
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.....

Name of program .....
Machine (including memory requirements) .....
.....

I declare that this is an original program which has not been previously published.

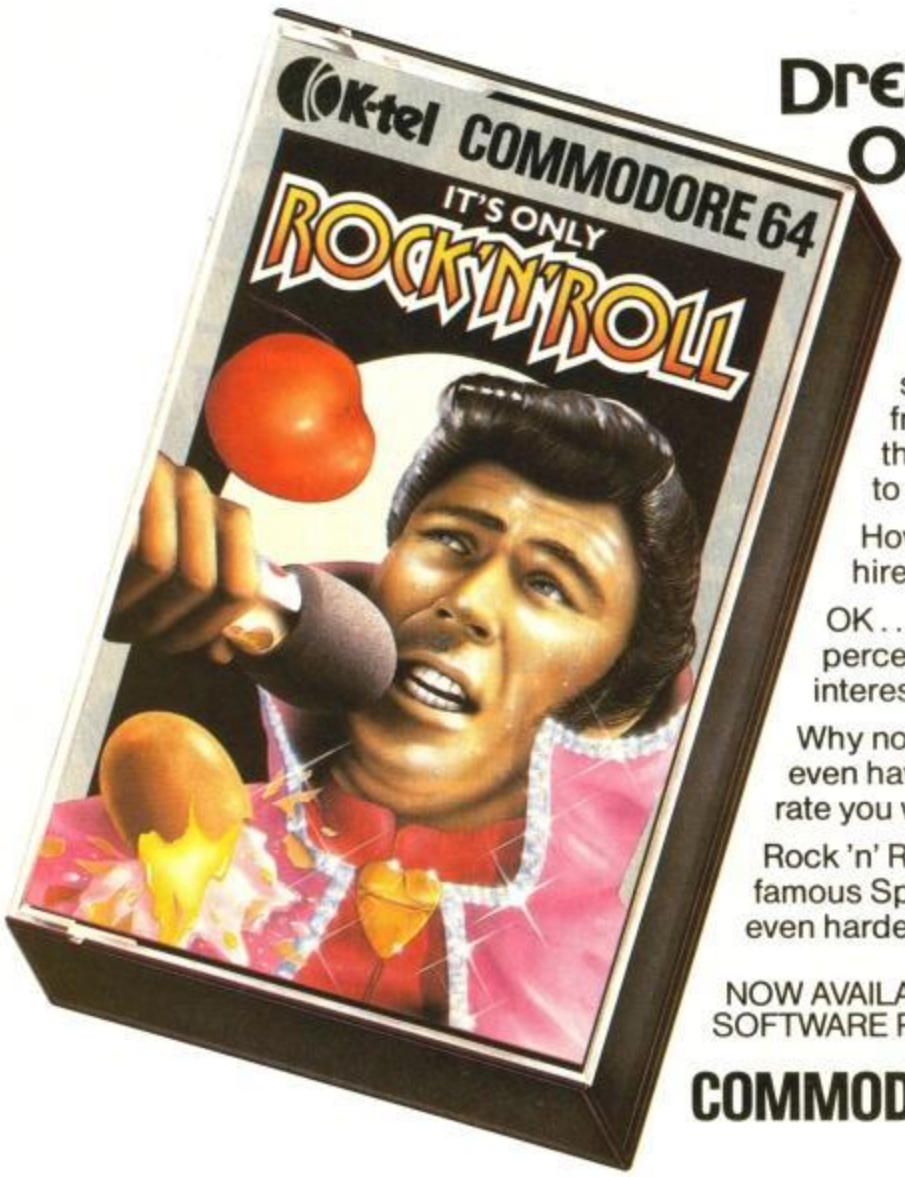
Signed .....

Send to: Program Library, *Personal Computer Games*, 62 Oxford Street, London W1A 2HG

```
1552 IFPK=84THENSC=SC+15*M
1553 IFPK=66THENSC=SC+5*TM
1555 Z=1
1559 POKEP1+X2-40*Y2,32
1560 RETURN
2000 X2=X:Y2=Y:GOSUB1500
2010 PRINT"YOUR TANK CRASHED"
2020 PRINT"PRESS Y TO PLAY AGAIN"
2030 GETA$:IFA$<>"Y"THEN2030
2040 IFSC>HSTHENHS=SC
2060 GOTO103
6399 STOP
7000 REM *** READ IN GRAPHICS DATA ***
7020 POKE56334,PEEK(56334)AND254
7030 POKE1,PEEK(1)AND251
7040 FORI=0TO511:POKE12288+I,PEEK(53248+I):NEXTI
7050 POKE1,PEEK(1)OR4:POKE56334,PEEK(56334)OR1
7060 POKE53272,(PEEK(53272)AND240)+12
7070 FORI=0TO4*8-1:READA:POKE12304+I,A:NEXTI
7075 FORI=0TO5*8-1:READA:POKE12552+I,A:NEXTI
7080
7500 REM SET UP SOUND
7510 S0=54272
7520 FORI=0TO28:POKES0+I,0:NEXT:
7530 POKES0+1,15:POKES0+5,9:POKES0+6,240:POKES0+4,16
7900 RETURN
```

```
3000 REM INSTRUCTIONS
3010 PRINT" THE IDEA OF THIS GAME IS TO PROGRAM      THE TANK WITH A SERIES "
3020 PRINT"OF LOGO-STYLE   COMMANDS IN ORDER TO DESTROY "
3025 PRINT"AS MANY    TARGETS AS POSSIBLE."
3030 PRINT"    AT THE START,THE TANK IS POSITIONED  AT THE BOTTOM LEFT CORNER "
3040 PRINT"AND IT CAN BE PROGRAMMED WITH THE FOLLOWING COMMANDS :-"
3050 PRINT"    F = MOVE FORWARD ONE LENGTH"
3060 PRINT"    L = TURN LEFT 90 DEGREES"
3070 PRINT"    R = TURN RIGHT 90 DEGREES"
3080 PRINT"    S = SHOOT "
3090 PRINT"    P = PROGRAM COMPLETE - GO"
3095 PRINT"    D = DELETE THE PREVIOUS COMMAND"
8100 PRINT"  THE MAXIMUM ROBOT TANK PROGRAM IS 40  COMMANDS."
8110 PRINT"IF THE TANK CRASHES INTO ANY  OBSTACLE,THE GAME WIL- END."
8120 PRINT"OTHERWISE YOU HAVE FIVE RUNS IN WHICH TO DESTROY ALL THE TARGETS."
8130 PRINT"THE POINT VALUE OF EACH TARGET INCREASES WITH EACH MISSION"
8140 PRINT"SO CAREFUL PLANNING  IS REQUIRED TO ACHIEVE HIGH SCORES"
8200 RETURN
10000 REM GRAPHIC CHARECTER DATA
10010 DATA0,0,120,252,255,252,120,0,16,16,56,124,124,124,124,56
10020 DATA0,0,30,63,255,63,30,0,56,124,124,124,124,56,16,16
10030 DATA0,2,4,72,48,240,232,224,0,0,0,31,24,60,255,255
10040 DATA0,0,0,16,60,126,127,255,0,16,57,125,255,147,147,243
10050 DATA0,72,130,24,57,4,64,0
```

This program is from the forthcoming book 'The Best of PCW: Software for the Commodore 64' published by *Personal Computer World* and Century Communications. It will be available in May.



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as you race to stop havoc and

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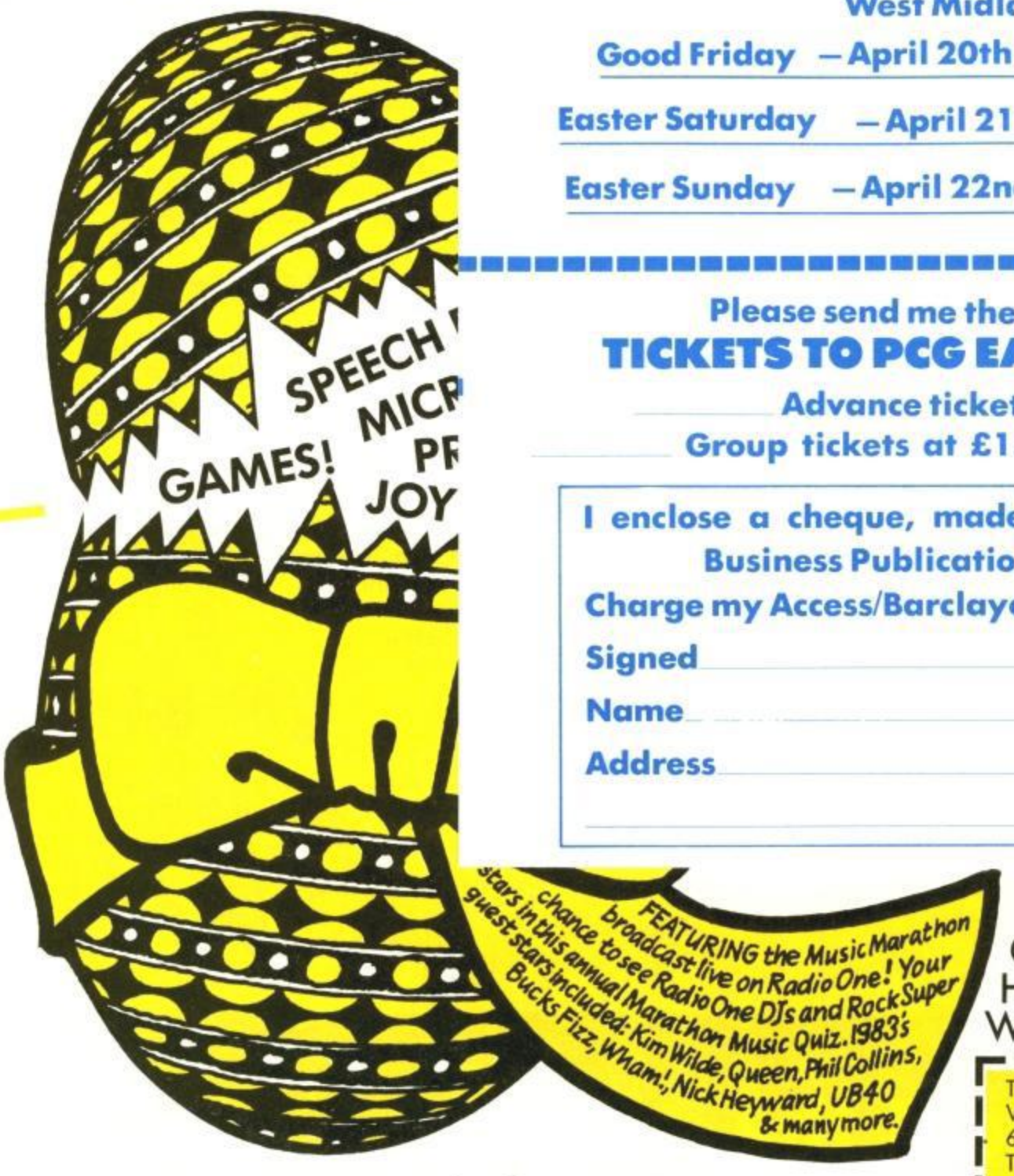

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To further confuse you, you may only use each path once. So take care you don't get trapped. In the direst emergency it is possible to make a new path, but that will take the one thing you haven't got . . . time!

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You proceed to explore the Pyramid from top to bottom with the difficulty increasing with the depth of level as the attack patterns get more complex and the aliens become intelligent.

Depending on the choice of exit from each chamber you are likely to have a different game every time you play.

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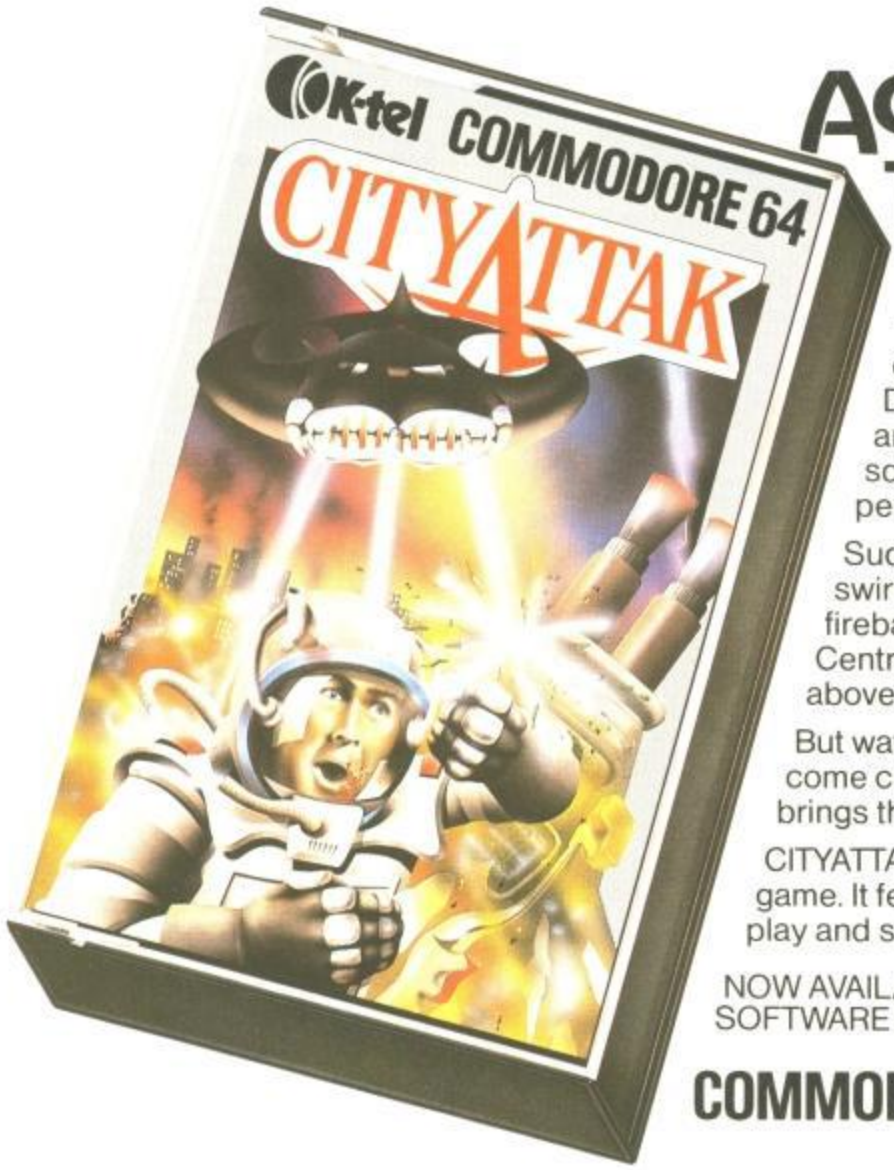

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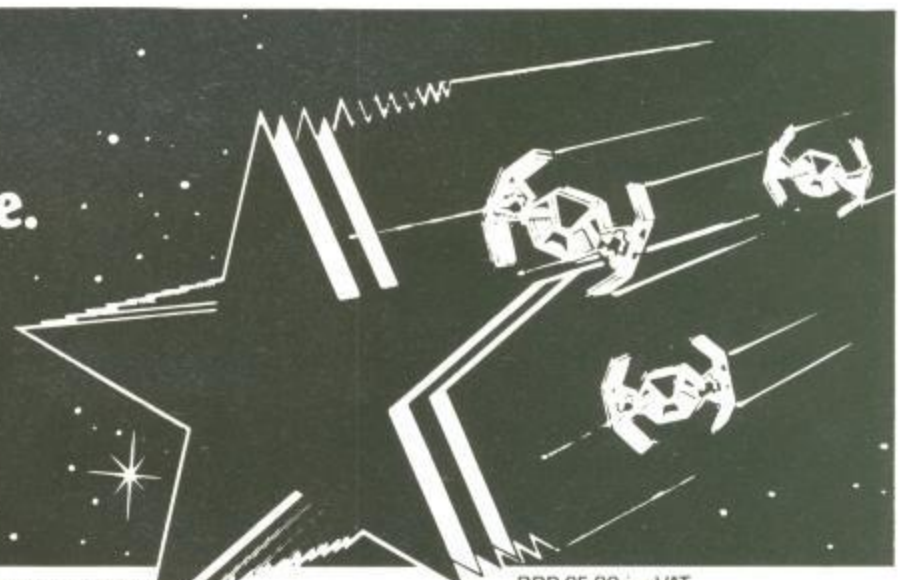

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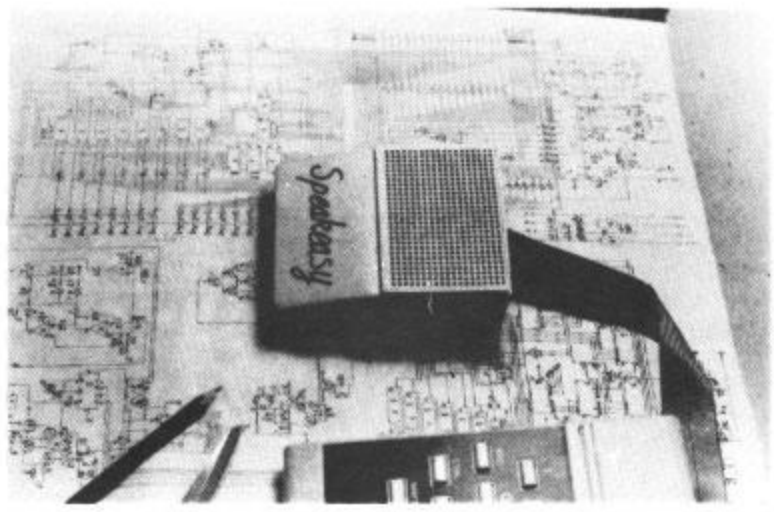

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Poor Albert has done a silly thing. He's climbed the wrong ladder and he's in the monster house. Luckily he's got a pick to dig holes to trap them but, he's got to knock them on the head or they mutate into Psycho's. Just one supply of nerve gas left to stun them for a short time, but does it work on the bouncers?

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All games listed here are arcade style games. They have been written in machine code for fast action, smooth graphic effects with sound.

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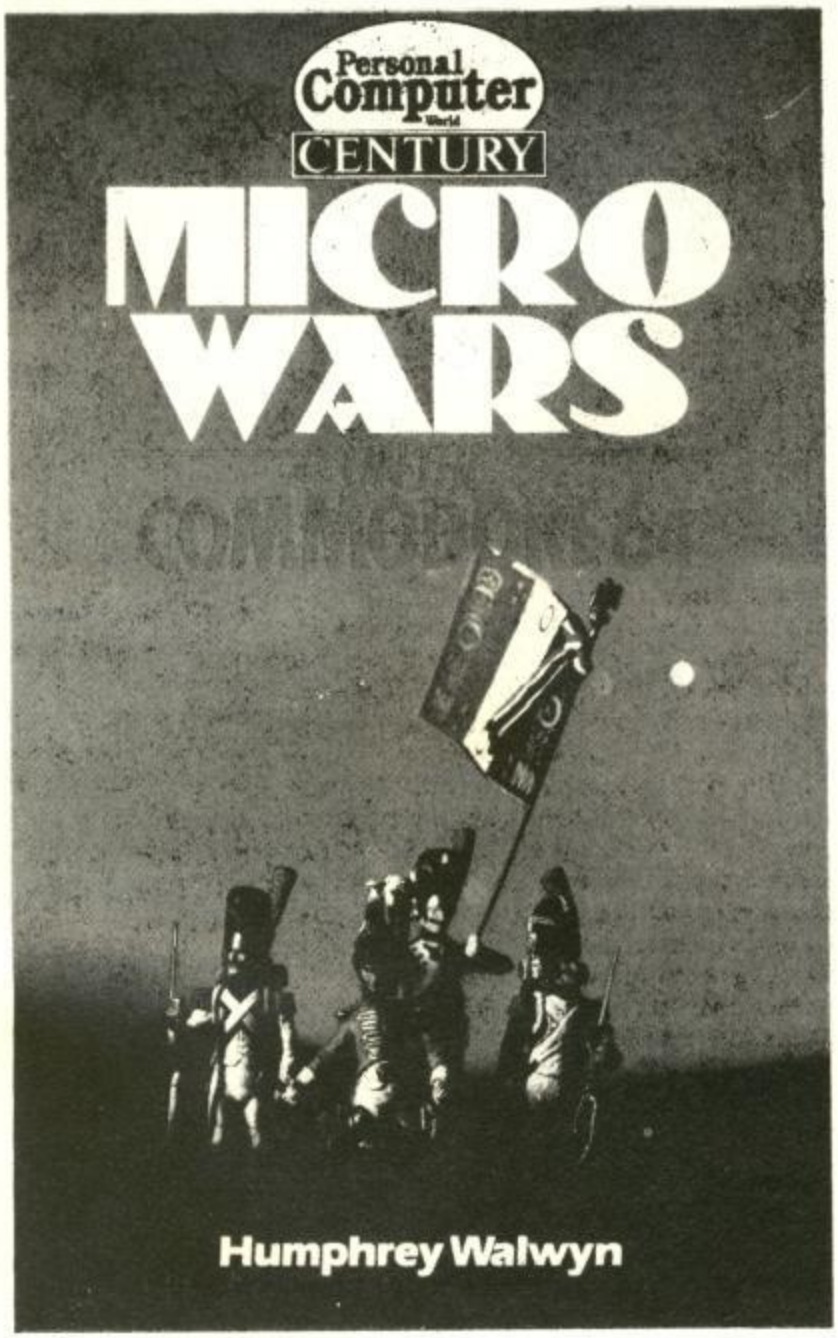

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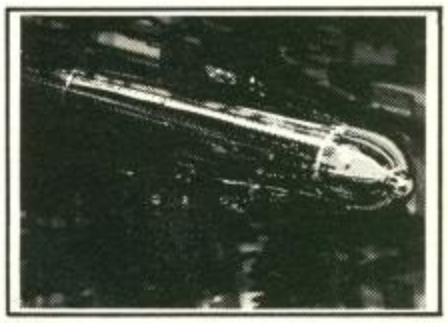
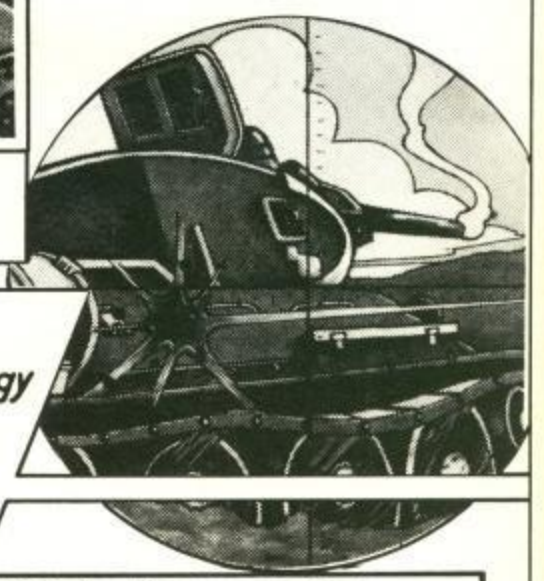


Try and pick off your Enemy from below the waves!

Kriegspiel

Here comes the first flakes of snow and out of it – their Tanks!

...How much longer can we hold this town...?



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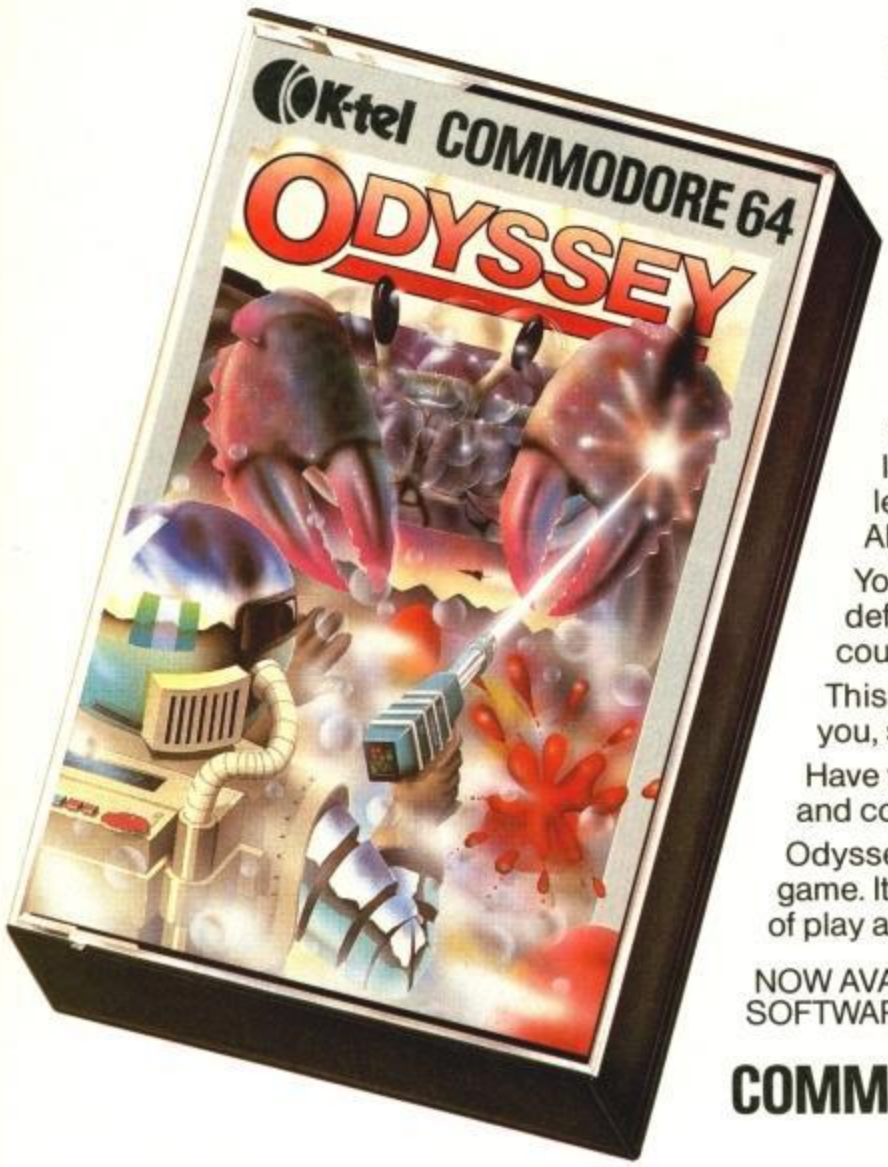

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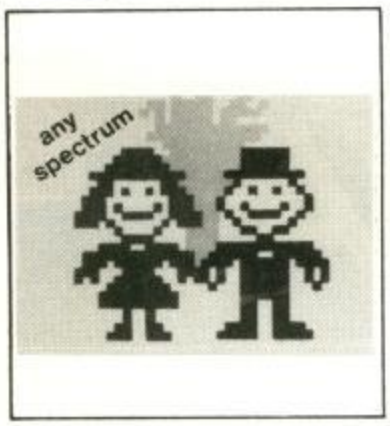
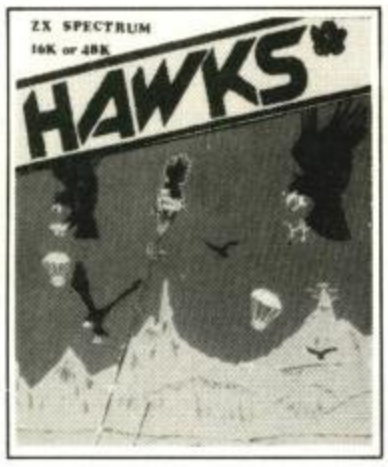
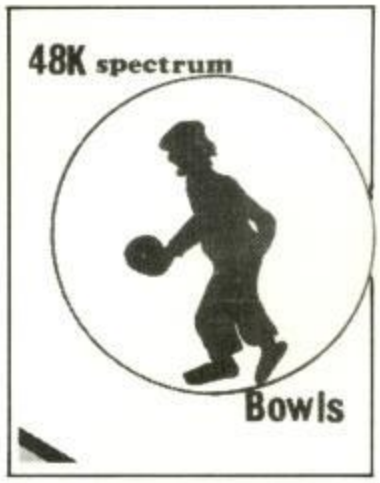


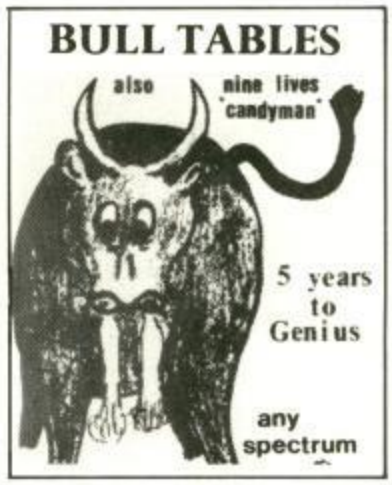
Joystick compatible
100% machine code. Special animated cartoon graphics. Unique change screens features. Avoid the vicious dogs, find the hidden exit and escape. (5 star review).



SHOOT EM UP
Eggs fall on parachutes, watch them hatch Mutant Birds. Fiendish Hawks, Laser, Missiles. 100% machine code. Progressive levels. Joystick compatible.



Graphics simulation of the popular game of bowls. Watch the bowl swerve towards the jack. But have you chosen the weight and angle correctly?



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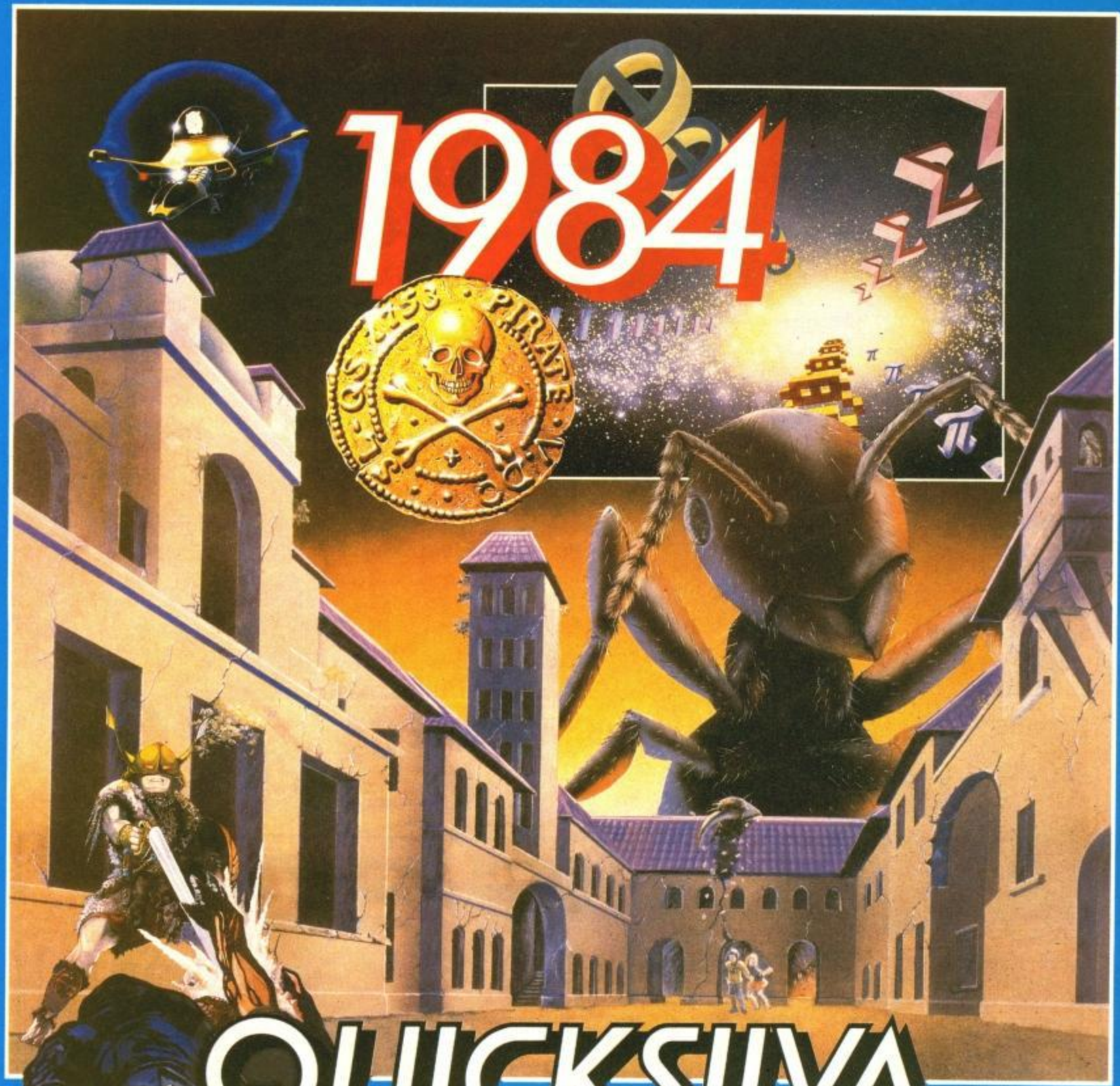

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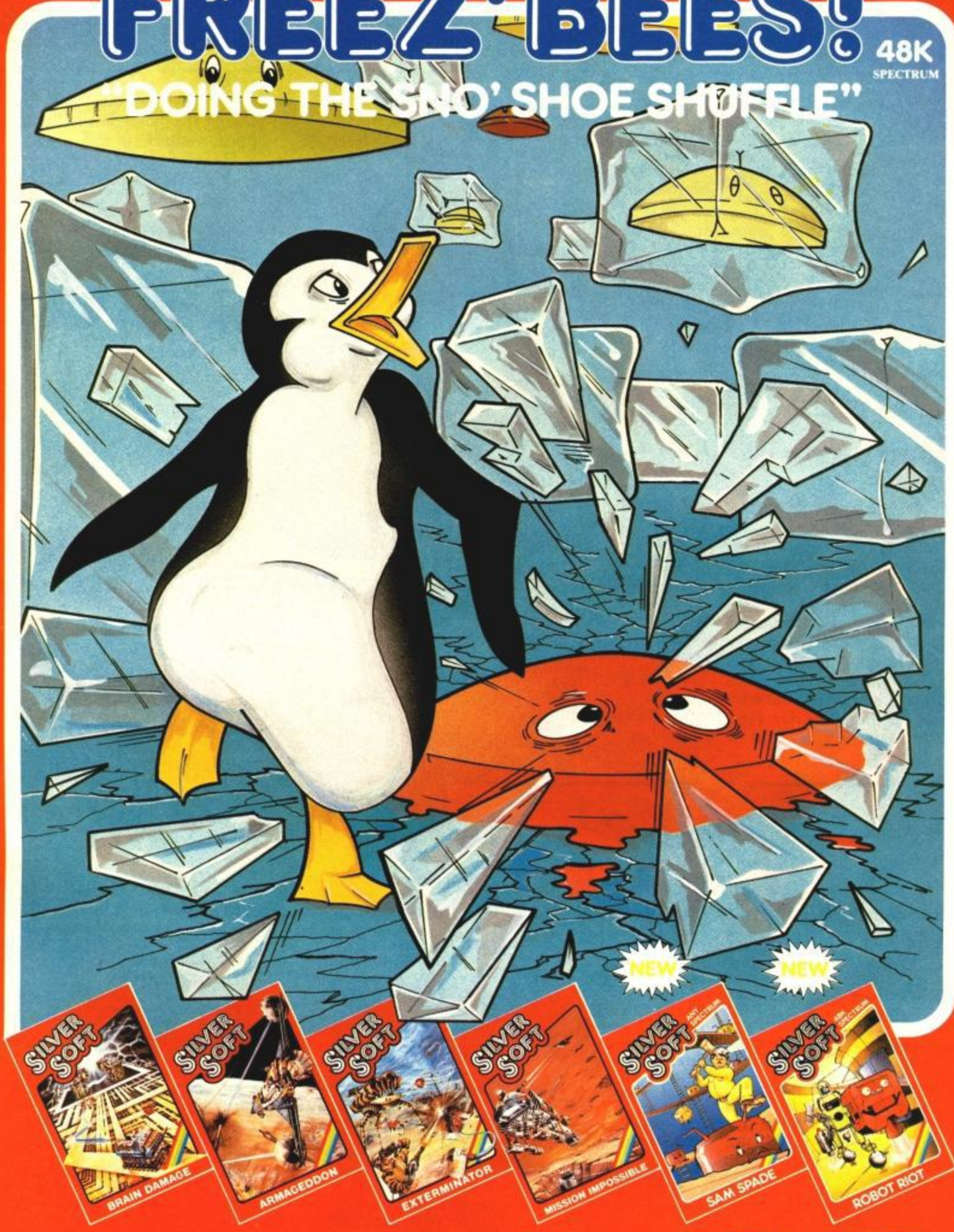

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PUZZLES • PUZZLES • P

SPECTRUM VS ORIC

Michael walked into a shop marked 'Computalogic' where there were two boxes on the counter, one marked 'Spectrum', the other marked 'Oric'.

'I'd like that one,' he said, pointing to the box marked 'Spectrum'. 'Are you sure?' asked the strange-looking assistant. 'The labels in this shop don't necessarily mean anything.'

'You mean those aren't Spectrum and Oric computers?'

'They are. But they're not necessarily labelled correctly.'

'Well I want a Spectrum,' said Michael. 'Which one's that?'

'You want the box with the label which ought to be on the box with the label which ought to be on the box marked "Oric"'.

Which one is that?

ANSWERS AT THE BOTTOM OF THE PAGE

BUG SPOTTING

Yes, the insects have certainly been attacking this program. It's meant to input 10 numbers and then sort them into order with the greatest first. It doesn't do anything of the kind. Spot the bug.

```
10 DIM Y(10)
20 FOR I=1 TO 10
30 INPUT Y(I)
40 NEXT I
45 FOR J=1 TO 9
50 FOR I=1 TO 9
60 IF Y(I)>=Y(I+1)THEN GOTO
100
70 X=Y(I)
80 Y(I+1)=X
90 Y(I)=Y(I+1)
100 NEXTI
120 NEXT J
130 FOR I=1 TO 10
140 PRINT Y(I);
150 NEXTI
```

If you can invent a puzzle to do with computers or computer games why not send it to us? You'll win a free program if we publish it! Send to: Puzzles, Personal Computer Games, Evelyn House, 62 Oxford Street, London W1A 2HG.

HARD DAY'S NIGHT

A middle-aged computer programmer spends the whole day from 6am working on his new game, which he desperately hopes will be a PCG Hit and thereby save him from the financial hardship he's experiencing.

He finishes the job and tumbles into bed exhausted at 10.45pm, setting his alarm for noon the following day. How many hours of sleep will he get?

PROGRAM CHECK

Running three programs simultaneously on my super-charged Sinclair QL, I find to my horror that one of them has run wild and is printing false statements.

I rapidly switch off the machine and then reload the programs, giving each the task of checking the performance of the others.

The programs, A, B, and C, report as follows:

A: The bug was in B

B: I am bug-free

C: The bug was in A

Aha! Now I know which program was to blame. Do you?

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PROGRAM CHECK
The bug was in A. If either B or C contained the bug, more than one of the programs would be making false statements.

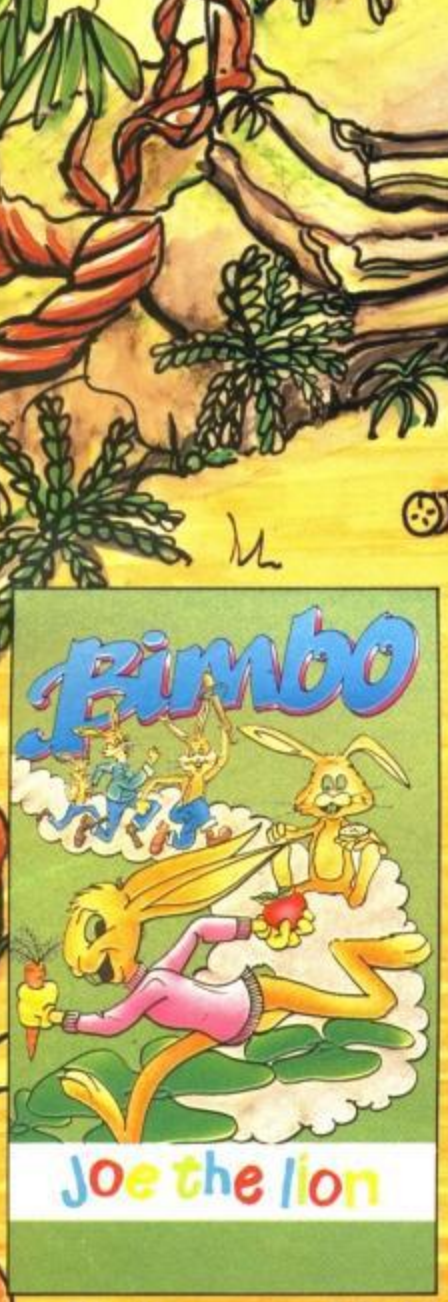
SPECTRUM VS ORIC
The box labelled 'Oric'. To see this, suppose that the boxes are labelled correctly and you will find that what the assistant says cannot be right.

BUG-SPOTTING
Lines 80 and 90 should be swopped.

HARD DAY'S NIGHT
1¼ hours. Since the programmer is poor he obviously hasn't been able to afford an electronic 24-hour alarm clock. His old clockwork alarm will wake him at midnight!

THERE IS ONLY ONE KING OF THE SOFTWARE JUNGLE!

Joe the lion



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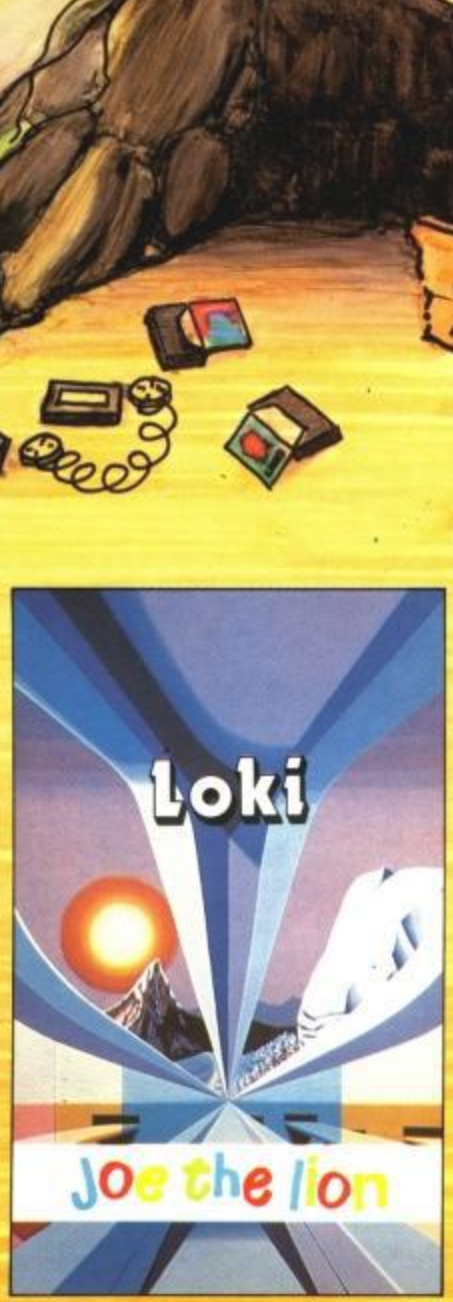

Loki **£6·45**
48 K Oric

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BBC B

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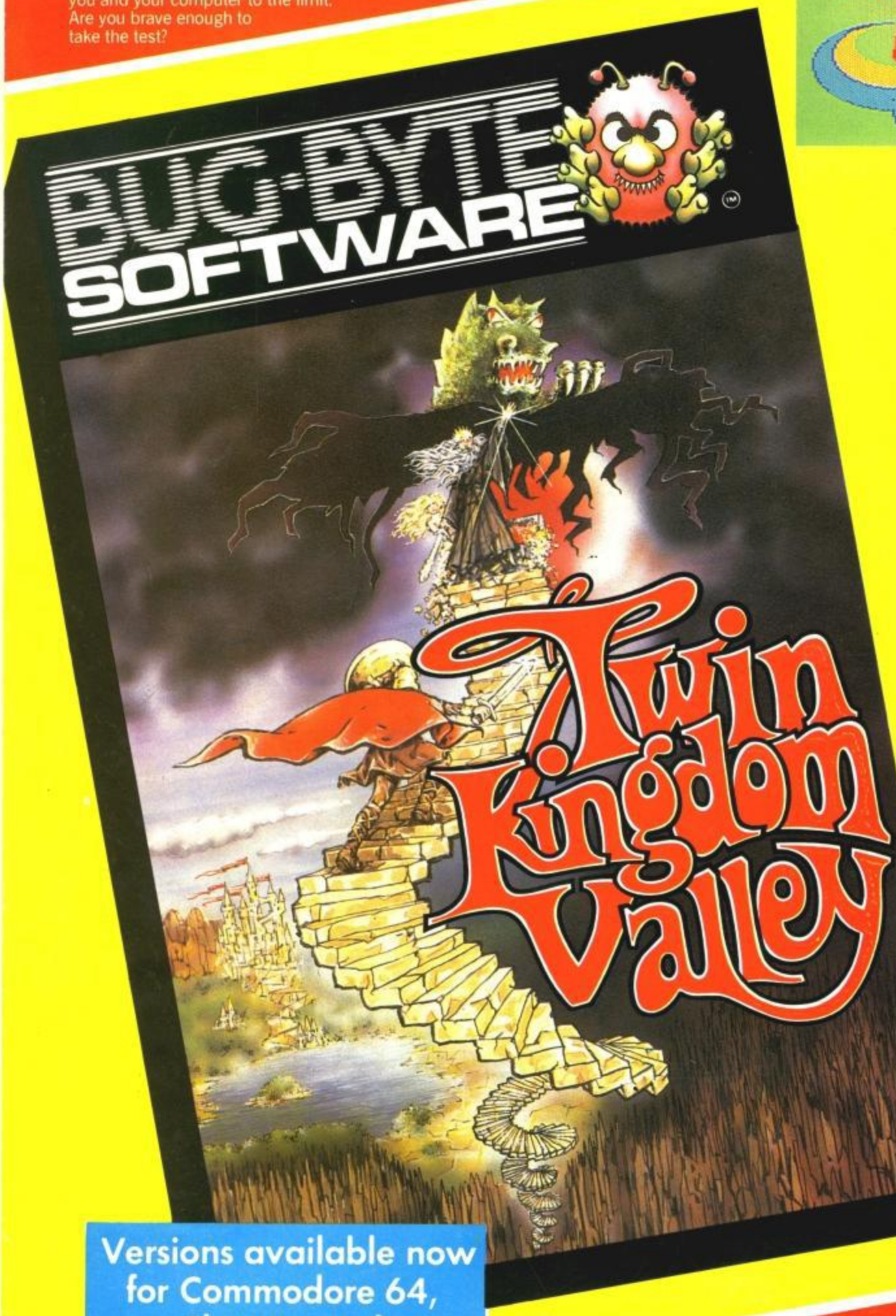

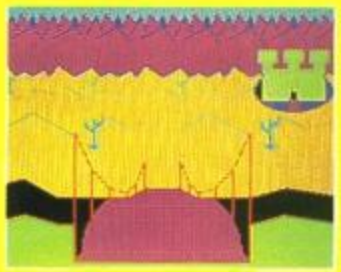

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