# THE CLASSIC ADVENTURER

I owned an Acorn Electron as a kid. It wasn't the greatest games machine in the playground, but it did have the best game of all-time, Braben and Bell's *Elite*, and one of the best adventure games of all time, Trevor Hall's *Twin Kingdom Valley*.

For a boy with a fertile imagination, and an obsession with the Fighting Fantasy books, *Twin Kingdom Valley* whisked me through the screen, and into a fantasy world of babbling brooks, Forests, Orcs, Trolls, Goblins, Dragons, Kings and treasure!

I played as many adventures as I could, but It wasn't until I owned a ZX Spectrum and Fergus McNeill's *The Big Sleaze* that I encountered the same immersion with another game. A friend and I spent many weekends hunched over the keyboard, notepad and pen, determined that Sam Spillade would find the missing Maltese Bullfinch.

I'm therefore delighted that both Fergus and Trevor feature in this celebration of classic adventure games, along with many other adventures and authors that transported legions of other kids to far flung corners of their own imagination.

**Mark James Hardisty, 2018**

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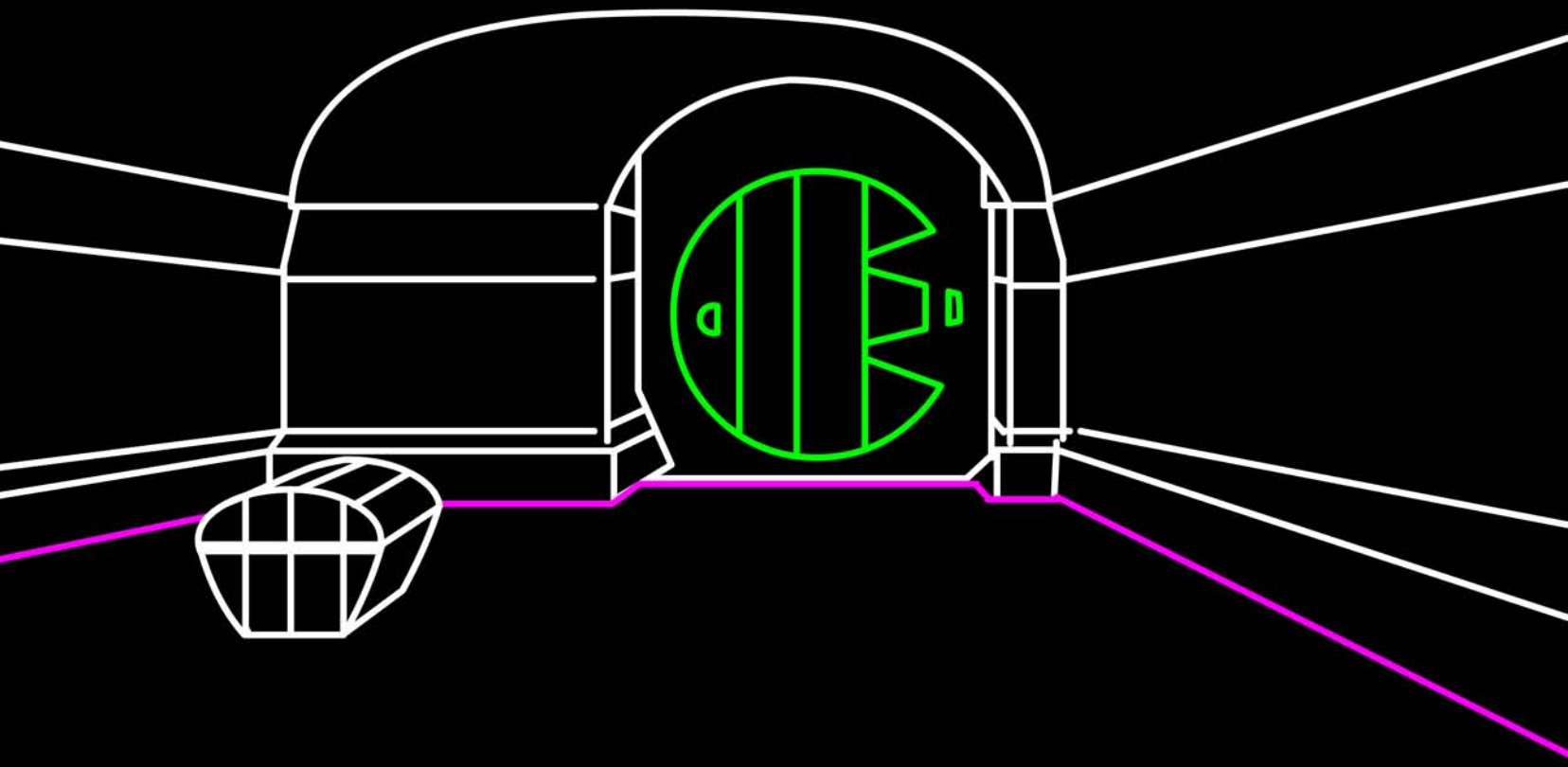
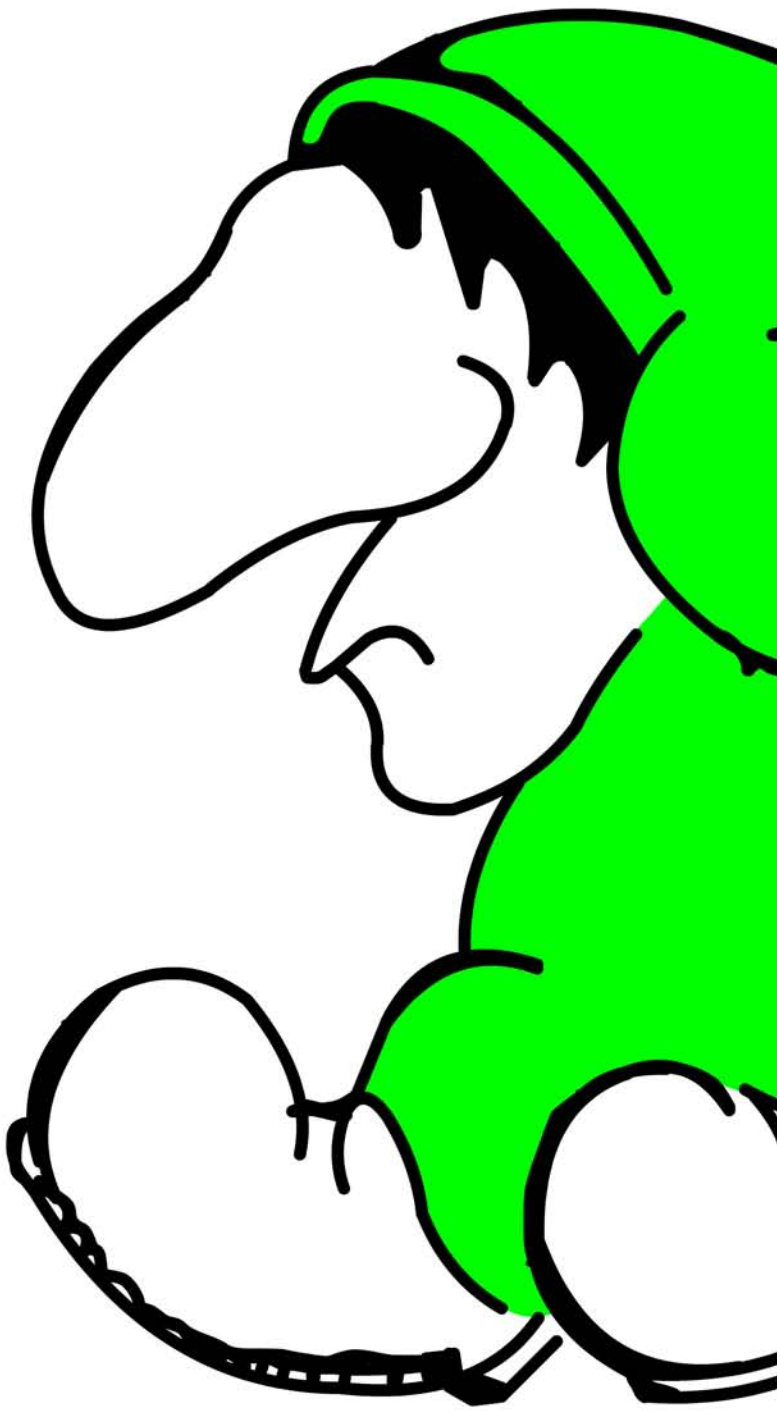


# ADVENTURE I

Written by **John Jones-Steele**, *Adventure I* was the first, and one of the best commercially available versions of Crowther and Woods seminal *Adventure* in Britain.

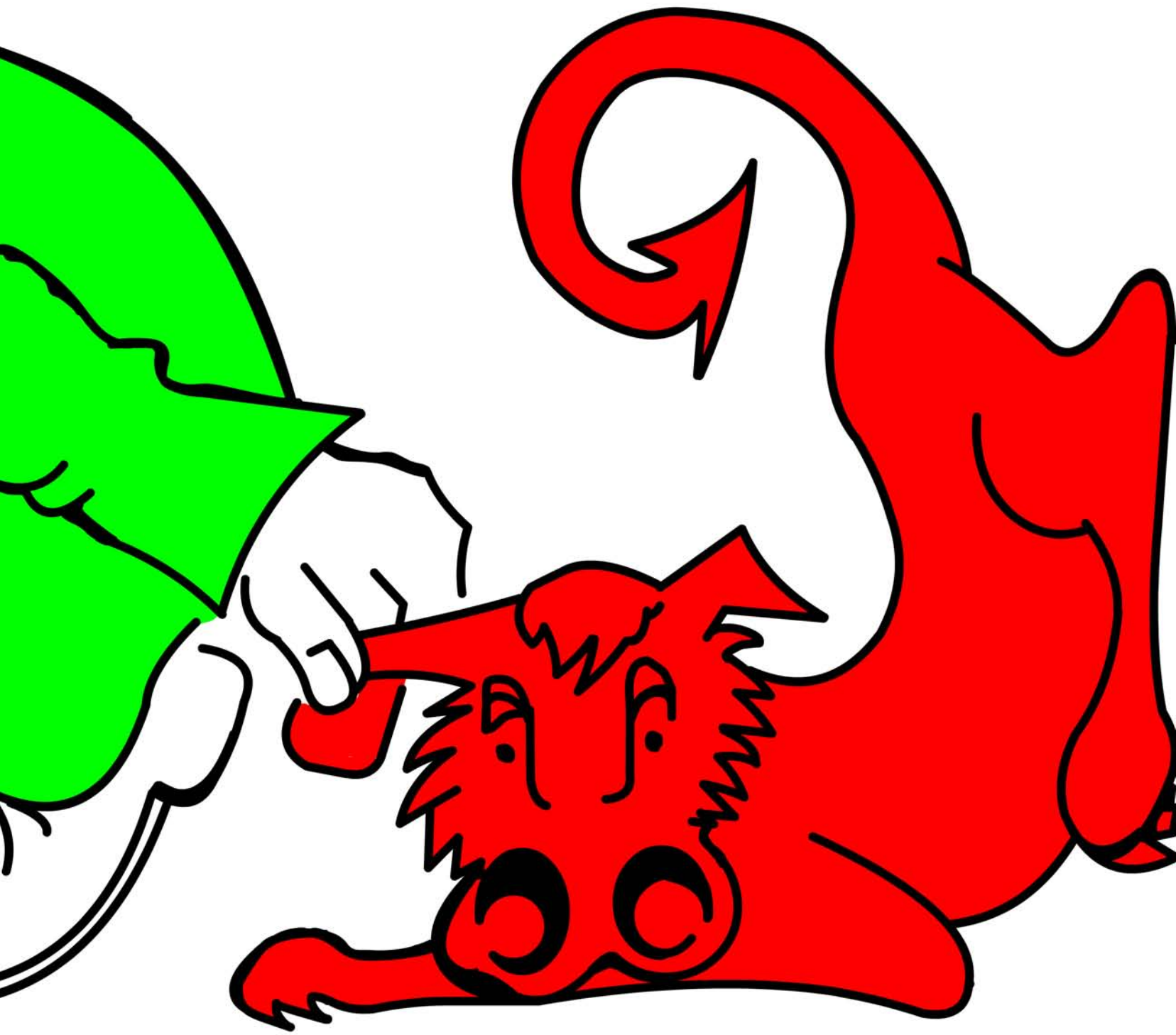


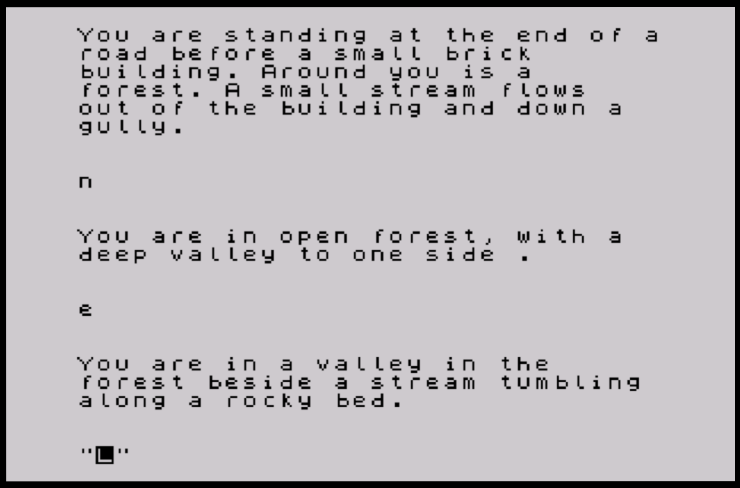
John Jones-Steele's interest in computing started at any early age as a grammar school pupil in the late 60s. When his parents moved to Aberystwyth in 1971 he applied for a job as a Computer Operator at the city's University, maintaining and running their ICL 4130 mainframe. He progressed to become Shift Leader, something required as the computer ran for 24 hours a day and had to be supervised at all times. The University encouraged staff to learn programming and Jones-Steele become proficient in Assembly Language, FORTRAN and COBOL, along with a host of other languages including PASCAL and ADA.

**At this time I was writing mostly in the pre-cursor to C, Compiler B and BCPL. I used this to develop a small *Chess* program that would eventually be rewritten in Assembly and released on ZX81. I started playing around with the department's Apple II and Commodore Pet and when the ZX80 came out I started looking at developing games in Assembly language.**

John started a small homegrown label called Abersoft, named after his employer, but there was no official link to the Uni.

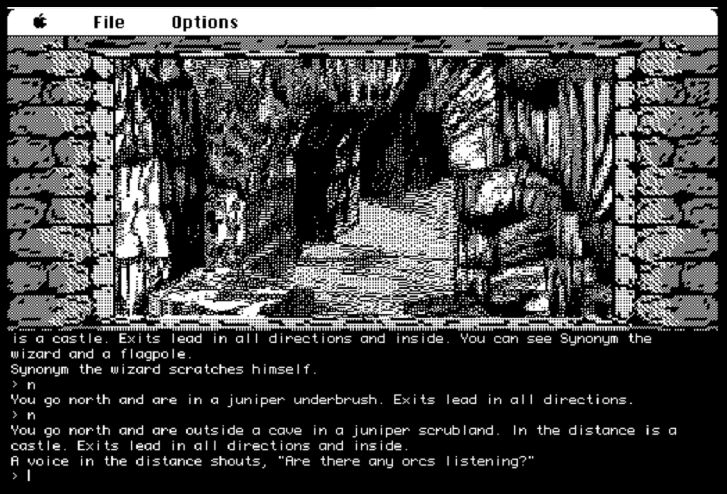
**Abersoft was Aberystwyth Software. I continued working full-time at the University and wrote games in my spare time, the shift work meant I had lots of spare time during the day and as soon as the ZX81 came out with the non-flashing screen I wrote a version of *Invaders*, *PacMan* and *Chess*. These were reasonably successful and helped fund purchasing all the other computers around at the time which I wrote versions for.**






**[Adventure I]** The first commercially available version of *Colossal Caves* published in the UK. Abersoft's *Adventure I* is *the* classic treasure hunt, beautifully and elegantly programmed to fit into the confines of the 16K ZX81. The locations may be abbreviated, but all of the puzzles of the original are included. A technical marvel.


**[Mordon's Quest]** Jones-Steele partnered with authors Peter Moreland Peter Donne for *Mordon's Quest*. He iterated his adventure system creating a lavish and complex adventure where the quest is to save the universe from destruction. No pressure.




**[Knight Orc]** John was employed by the Austin brothers to port Level 9's Knight Orc Adventure System to the original black and white Macintosh computer.

The University replaced the original mainframe machine with a new Honeywell 6000 series in the late 70s. This came with a version of *Adventure*, or *Colossal Caves* already installed.

**I really loved the game and decided to write a version for the 16k ZX81 as soon as it came out. I managed to get hold of the original Fortran version while visiting the University of Manchester's computer department and proceeded to recode the data into a primitive database. I also [started to] look at text compression to squeeze the game into the limited memory.**

It became *Adventure I*, released in April 1982 for the expanded ZX81 computer. John developed his version in isolation, without reference to the Scott Adam's interpreter that was written to fit the same game into a machine of similar capabilities. The resultant program was a compact 13K of machine code and 1.5K of BASIC.

**I developed a primitive database system that had custom codes for movement, etc. It was a format that was probably a primitive version of an A-code data layout [the technology developed by the Austin Brothers at Level 9 that John would encounter later in his career]. At that time there wasn't much text written about parsing languages, so I wrote a simple system that basically allowed for a verb and a noun to be extracted from the input and compared with the commands I would allow at each location.**

It was a simple, but impressive feat. Even more so considering that John wanted to fit the entirely of *Adventure* into the 15K program.

**[My] version contained all the puzzles, locations and scoring system of the original version. The text was kept as close to the original as possible, but even with compression, some locations had to be abbreviated.**

There was also space to include the original's famous magic verbs, and he worked in a very useful feature into his version of the classic treasure hunt. Typing BUILDING from anywhere in the game world [apart from the maze] would transport you back to the small brick building where you could deposit your ill-gotten gains.Sinclair User magazine was impressed with its speed, programming, and ability to save your position to cassette. "It is an expensive program, but it is a remarkably good version of the original *Adventure* and well worth the money".

The included instructions began with the famous opening lines "Somewhere nearby is a Colossal Cave" and the game became notable in adventure history as the first commercial home micro version of *Caves* to be available in Britain. Level 9 weren't far behind with *Colossal Adventure*, and Artic Computing had pioneered a year previous with several titles, albeit of a different theme.

The more powerful ZX Spectrum was launched during development of the original game, and the extra 32K of RAM meant that the abrupt location text required to squeeze the game into 15K could be expanded for a new version.

**The Spectrum was just really a big ZX81, so I put back the missing text from the ZX81 version and wrote a 40 column text output routine rather than the [standard] Spectrum 32 columns so I could get more text on screen at a time.**

The 48K version of *Adventure I* was released on the Spectrum later in the same year. Calling the game *Adventure I* opened up an interesting discussion around the post-fixed number, and John suggests that further games in the series may have be considered.

On the other hand, it may also have been an awareness of avoiding any copyright disputes, even though the ownership and licencing of the mainframe version on home micros was a very grey area.

**There were definitely big plans to write new adventures following the release of *Adventure 1* and I wrote quite a few scenarios for these, none of which has survived the passing years unfortunately. [I was] very aware of IP, hence the *PacMan* game was called *Mazeman*, but University source code was pretty much thought of as public domain, rightly or wrongly.**

Being the first *Adventure* port to market certainly made a name for John, and Abersoft became well regarded in the industry. The bigger players that were beginning to establish themselves took note.

**It was a bit difficult to judge. I had some nice letters from people praising the game, one from a famous singer of the time who, jokingly, complained that it took ages to break a set as the roadies were all playing *Adventure*!**

It was re-released twice, once by CP Software as *Colossal Caves* and more famously as *Classic Adventure* published by Melbourne House. For the majority of gamers in the 80s, it's Melbourne House's version that adorned the shelves of many gamers in the 80s. The iconic skull and treasure packaging artwork of that release was unmistakable.

**I had done some work for CP software, I forget what, and they wanted to have another game on their books so licensed Adventure 1. The Melbourne House deal came about when Fred Milgrom called me one day and asked me to loosely join Melbourne House. It was more a case of being a freelance with Melbourne House taking all my product.**

John was hesitant to give away his technology, but a deal with Melbourne House was too tempting. They're already brought *The Hobbit* to market, and were establishing themselves as a leading publisher of adventures. Becoming part of that stable going forward was a mouth-watering prospect. They promised to throw their growing might behind the game and funded John to port his source to other machines.

**They all sold reasonably well, [and][...] I did all the conversions. I was quite jealous of [giving away] my system as it had such a small footprint I didn't want to let others have the ideas. However, my deal with Melbourne House didn't really give me a reasonable percentage of the sales and that was the beginning of the end for the relationship.**

There was a full-time job on the table, but the University also offered him another position. Would he take a management post in the Computer Department at the University, or accept Melbourne House's offer to move into games?

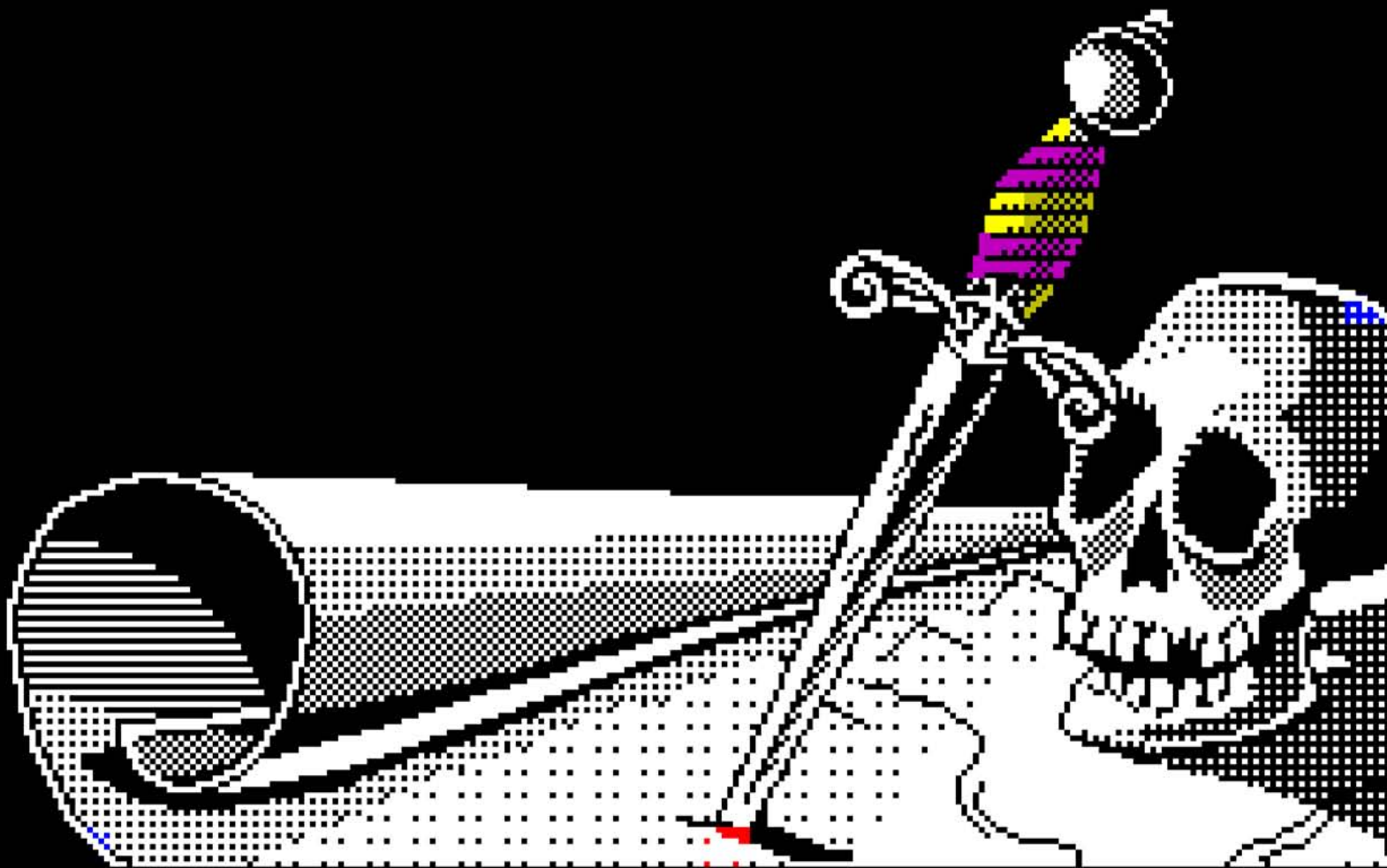
He decided to accept the offer to stay on at the University, but continued work on a brand new adventure and promised Melbourne House the publishing deal.

**[Peter Moreland and Peter Donne] approached me with an idea they had for a game and we decided to work together on the title. They handled the design, layout and text and I developed a simple system for them to be able to write the game on paper and then input it into my game system. The engine was a version 2 of the *Adventure 1* system.**

John's creativity was at the periphery of the story, making changes to the engine and the parser as necessary to accommodate Moreland and Donne's writing. Despite his new employer insisting that their adventure catalogue contained graphics, the second version of the *Adventure I* system didn't employ any imagery at all.

**At the time, I thought that the text was more important than graphics and that graphics just stole my memory! Once the new generation of computers came out, I could see the sense in having both great prose and graphics that looked like something.**

*Mordon's Quest* [taken from the first three characters from each of the writer's surnames] was released in July 1985. The story had the



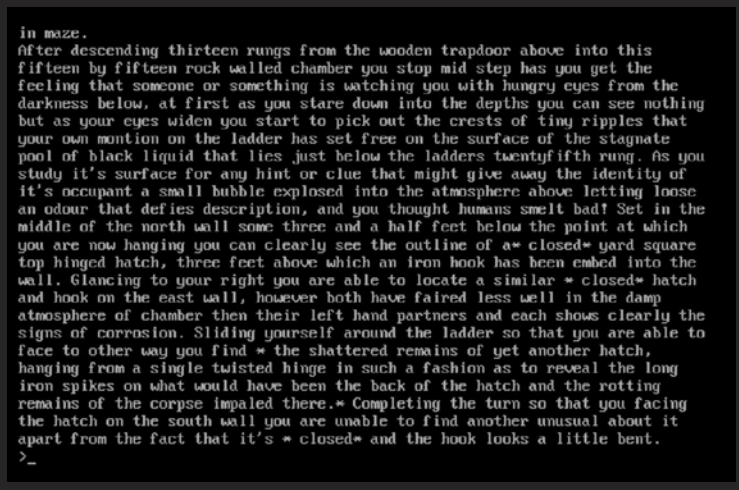
# RAINBIRD ADVENTURE IMPLEMENTATION LANGUAGE

Rainbird was a sister label of Telecomsoft's Firebird brand, first setup in 1984. It was named after Telecomsoft's charismatic Tony Rainbird, a charismatic advocate of videogames who had been employed to run the company. Rainbird recruited the services of Britain's top two adventure houses, Level 9 and Magnetic Scrolls and were keen to increase their output of games at the zenith of the market.

John Jones-Steele was employed to design an adventure creation language and worked alongside Paul Coppins to create the Rainbird Adventure Implementation Language.

RAIL was developed until 1988 when the decision to cancel the project was made. John has made the final version of the project available on the Bird Sanctuary website, which comes with a test adventure series, entitled *The Light of the Shadowlords*.

For more information visit http://www.birdsanctuary.co.uk/rail




player travelling all over the galaxy in a time machine, collecting lost pieces of Mordon's immortality device to save the universe. John and the two Peters took full advantage of the extra memory available by not including graphics and crowbarred into the game 150 locations and a 400 word vocabulary. There was a chance to be more expressive with the prose, and it looked very impressive on screen thanks to a new text handling system that widened the usual Spectrum display to create the impression of a full page of text.

Your Computer magazine said "with its detailed atmospheric text and touches of humour, *Mordon's Quest* guarantees many hours of stimulating pleasure". The Spectrum flagship magazine Crash raved about it, saying "it has long, atmospheric puzzles ingeniously interwoven into a fascinating fabric of clues and apparent dead ends."

Confusingly Melbourne House advertised *Mordon* as a continuation of C*lassic Adventure*, but it drew no narrative parallels with the original game. The opening text speaks of being one of the "first in the saga" but further games were never developed, nor released. Keith Campbell in C&VG magazine reported of a sequel underway called *Bostafer's Revenge* – it never materialised.

**Apart from some initial discussions nothing happened, nothing more was done. Peter Moreland got a job in the industry, and the time for a new game just wasn't there. [By the way] *Bostafer* was an anagram of Abersoft if you hadn't realised.**

The royalty payment strained the relationship between John and Melbourne House resulting in John terminating the partnership. Outside of *Mordon's Quest* he been undertaking some freelance work for Level 9. Impressed with his work the Austins offered him a position with the company.

**Pete and Mike made me an offer I couldn't refuse to leave the University and work for them full-time. I still worked most of the time from my office at home, but occasionally spent a day or two down with them discussing the projects.**

**It was quite difficult [...] working with a family firm. Everything was fine in the development, but ideas I had seemed to be put aside. It wouldn't have been a relationship that would last long. I had been in charge of my own department for years at the University and it was difficult for me to have to write things I wasn't convinced were correct**

John worked on the Knight Orc Adventure System, or KAOS, for Level 9, an expansion on their A-Code technology. He ported the code to the original Macintosh computer and the engine was used for *Knight Orc*, and subsequently in the *Gnome Ranger* games, *Lancelot* and *Scapeghost*.

He left before the release of *Knight Orc* having been approached by Telecomsoft to write a new adventure system for Rainbird. He designed the Rainbird Adventure Implementation Language or RAIL for short.

**RAIL was a work in progress, Paul Coppins at Telecomsoft was testing the system and also getting me to add new features he wanted.**

It was in development for seven months between November 1987 and June 1988. Unfortunately, the promise shown by RAIL was never realised, it was shelved as the commercial text adventure market dwindled with the advent of 16-bit machines and consoles.

**After Telecomsoft was bought by Microprose, I went back to running Abersoft before joining Goliath Games as a partner. After Goliath closed, I was back to Abersoft where the only adventures I had a hand in was the *Ultima VI* conversion for Amiga and ST. There was some initial work done on *Martian Dreams* but that didn't happen. Trying to find publishers for adventures, especially text adventures, was impossible so I had to turn my hand to anything that was available.**

# DESERT ISLAND DUNGEONS

Run aground on an errant piece of coral and sinking fast, **John Jones-Steele** is forced to abandon the goodship Abersoft and becomes a castaway on Dungeon Island with only five text adventures to play until help arrives.

**The Zork Trilogy, Infocom.**
The spiritual successor to *Colossal Caves*. I could get lost in this for ages.

**The Hitchhiker's Guide to the Galaxy, Infocom.**
Brilliantly brought to life the book!

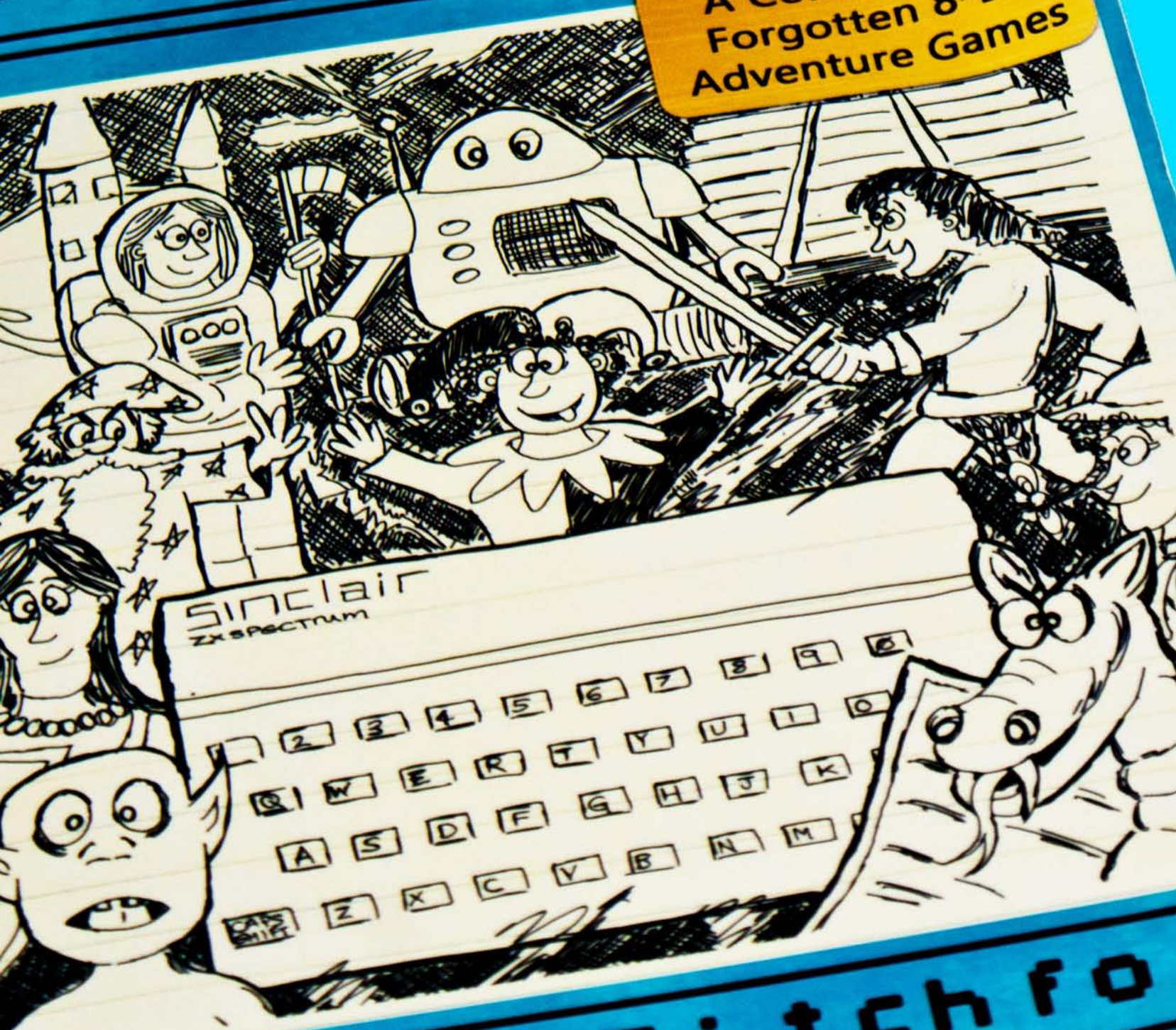
**Leather Goddesses of Phobos, Infocom.**
Just really silly but very entertaining.

**Trinity, Infocom.**
Thought provoking and probably the best text adventure written.

**Planetfall, Infocom.**
Great Sci-fi adventure. Floyd the robot was a brilliant part to the game.

# TWILIGHT INVENTORY

A Collection of Forgotten 8-Bit Adventure Games




Gareth Pitchfo

# TWILIGHT INVENTORY

Gareth Pitchford knows a thing or two about what makes a good adventure. In **Twilight Inventory** the author of *Microfair Madness* and *Get me to the Church on Time!* takes us on a whimsical trip back in time to explore the flourishing British indie adventure scene of the 1990s.

**Author:** Gareth Pitchford
**Publisher:** Self-published
**RRP:** £9.99
**Buy it from:** Lulu, Amazon
**Website:** http://www.8bitag.com/

Twilight Adventure is a love letter a better time. A time when an entire genre of games was supported by an almost underground collection of indie developers, fanzine writers and secret guild aficionados. Gareth Pitchford's aim with the book is to "give the reader a flavour of the small, but vibrant and flourishing British adventure scene" and he does it with aplomb. Being a former adventure author himself, with several games under his belt [the majority published on the funky Delbert The Hamster Software label] he's well placed to know what makes a good puzzle.

He's done a fine job with the book, it's a lovely volume, and available via the self-publishing site Lulu, Amazon [physical or digital] or as a free [yes, free] PDF download via the author's own website. He's pulled together a plethora of reviews [written back in the day for a variety of adventure 'zines] into a 234 page paperback that covers a huge range of games and authors, many of which you won't have encountered before. With publishers from The Guild, Compass Software, GI Games and FSF Adventures through to Zenobi, Gareth has left no stone unturned.

It's well presented, with the cover featuring a delightful piece of his own trademark pen and ink artwork, and is designed to look like a cassette inlay – though the effect is only really apparent with the digital version. Each game is given 4 or 5 pages for a review, with a couple of screenshots for each [all in black and white in the print version] game. Gareth's writing style is witty, relaxed and his in-depth knowledge of the games shines though. He brings a different viewpoint to the game's mechanics, often from the advantageous position of knowing the authoring software and techniques inside out, and explores other nooks and crannies in the game where others haven't - bringing these puzzles and characters to life with a wry sense of humour.

As suggested earlier, it's a collection of old reviews, whipped into shape for the book, and the tense still refers to the games "of the time". There's lots of recommendations to rush out and buys, and text looking forward to forthcoming games, but in the reviews where this occurs though, Gareth has added a small postscript in italics to bring the text up-to-date. It's a nice touch.
In the back there's a useful index, summary of publishers and authors, and a brief look at some of the fanzines around at the time. He's even included a few SAM Coupé games for good measure, though who had a SAM, right?

It gives old-school text adventure aficionados a reason to keep those rose tinted glasses on for a little longer. At under a tenner, Twilight Inventory is an absolute steal. For free it's a no brainer, just remember to make a small contribution to Gareth's charitable cause.

# EXPLORING COLOSSAL CAVES

Somewhere nearby is **Colossal Cave**, where others have found fortunes in treasure and gold, though it is rumoured that some who enter are never seen again. Magic is said to work in the cave. I will be your eyes and hands. Direct me with commands of 1 or 2 words.

*Bedquilt Cave Adventure* – do you remember that one? No? Well, in a parallel world it may have been the title of the text adventure that started it all. Bedquilt was part of the Mammoth Cave system in Kentucky that gave Willie Crowther the inspiration for the original *Adventure* game. He told Dennis Jerz that "the geometry [of the game] was lifted directly from Bedquilt Cave" not from Colossal Cave.

Crowther had started writing *Adventure* – an interactive textual simulation of a caving expedition in 1975, as he was going through a protracted divorce. He used the development of the game as a way to engage with his children in his spare time. Along the way, the game evolved to include puzzles and mythical creatures, more than likely under the influence of the Dungeons and Dragons games he was playing with a group of friends at the time.

His first effort, 79 locations and 193 words in 700 lines of FORTRAN code and 700 lines of DATA was saved as ADVENT, limited to six characters because of the restrictions placed on file names on the PDP-10 mainframe computer he was using. In fact, though the game is often referred to as *Advent*, there's no doubting its name - the text always began with the message "Welcome to *Adventure*".

Crowther left for California to further his career in 1977 leaving *Adventure* behind. He had no ambition for the game other than to keep his children occupied and to share it with the computer community. It was rumoured that once he'd overcome the challenge of creating the program he lost interest in it.

Luckily for us, others did maintain an interest and the unpolished code made its way onto an experimental computer network at the US Defence Department's Advance Research Projects Agency [ARPAnet] where it was discovered at Stanford AI Labs by computer science

student Don Woods. He was instantly hooked, telling Matthew Lyon in his book Where Wizards Stay Up Late, "*Adventure* made users feel like they were interacting more with the computer. It seemed to be responding more to what you typed, [and] I think that attracted a lot of players. [...] This was playing with a computer."

Woods attempted to track down the original author by doing the only thing open to him in pre-internet times - he sent an e-mail [another first created on the ARPAnet system] addressed "Crowther" to every other network that was in existence at the time. Amazingly he got an answer, and received the source code with Crowther's blessing on the sole condition that he would return a copy containing any changes that were made. Woods quickly got to grips with the source, taking about four months to fathom out the code, fixed some of the original's bugs and corrected problems with several location connections. That became version 1 and became immensely popular, quickly finding its way to almost every computer network in the US.

Version 2 took around a year, doubling the rooms, adding new treasures, puzzles, expanding the text, and introducing a pirate who stole the player's treasure. Woods told Jason Scott for his GET LAMP documentary "I tried to make the various puzzles within the game interlock, [...] this thing that happens here matters later, and you thought you were done with this part of the cave but there's something else you can do there."

A more Tolkien-esque feel to the world was introduced, and Woods told Eric Raymond, responsible for creating *Open Adventure* [a recent port of version 2.5 from 1995] that the main differences were the introduction of "new treasures" that "require[d] solving a puzzle that's definitely at the tricky end of the scale for *Adventure*." The forest was converted from a partially-random maze with a few locations to a fully-fledged maze, the scoring system was tweaked, and the game's troublesome torch and finite battery life was overhauled.

Version 2 was significant because it also introduced the concept of basic Artificial Intelligence and Pseudo-Intelligent Characters to an adventure. Woods changed the simple behaviour of Crowther's Dwarves. They had been programmed with a fixed route of movement, meaning that in the new expanded world it would be very unlikely that the player would ever encounter them. Woods introduced a "wander" algorithm, giving the characters the ability to move around the cave at will, but adhering to the rules coded into the database's location connection tables. He also added simple AI, for example, ensuring that all of the Dwarves didn't end up stuck in dead-end parts of the caves. "I had to make them a little smarter" he told Scott.

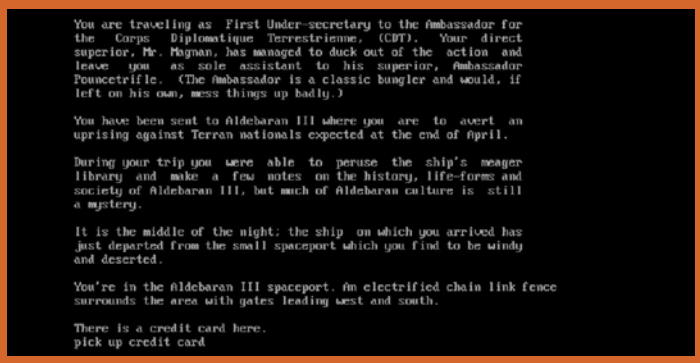
Between 1977 and 1995 Crowther and Woods continued to work intermittently on the game, culminating in the release of Adventure version 2.5. To say we owe them both a great of debt of gratitude is an understatement. *Adventure* is as important videogame history as *Spacewar*, *Space Invaders* or *Pac-Man*. It defined the conventions that we take for granted, and it's DNA can be traced in every single text adventure that has come since.

We can also be thankful that in those pioneering days, there was a culture of experimentation, and that software was social and something to be shared. Both Crowther and Woods wanted the game to be communal, modified and enjoyed - though neither expected it to be something that people paid for. Woods is thankful for the occasional donations he receives, every now and again, and says that thanks received in an e-mail never gets tiresome. On the subject of royalties for *Adventure*, in GET LAMP he shrugged his shoulders and told Scott "I didn't mind if people wanted to take a copy and play with it, and make a copy available for free – when someone took it and turned it into a version they charged for it and didn't give me anything for it – that was annoying – but what can you do?"

"I didn't mind if people wanted to take a copy and play with it, and make a copy available for free"

# A WANDERING STAR

We rightly celebrate *Adventure's* pioneering place in history, but it is argueable that Peter Langston was the first with *Wander*, a text-based world modelling program he coded in 1973 whilst teaching at Evergreen State College in Washington.

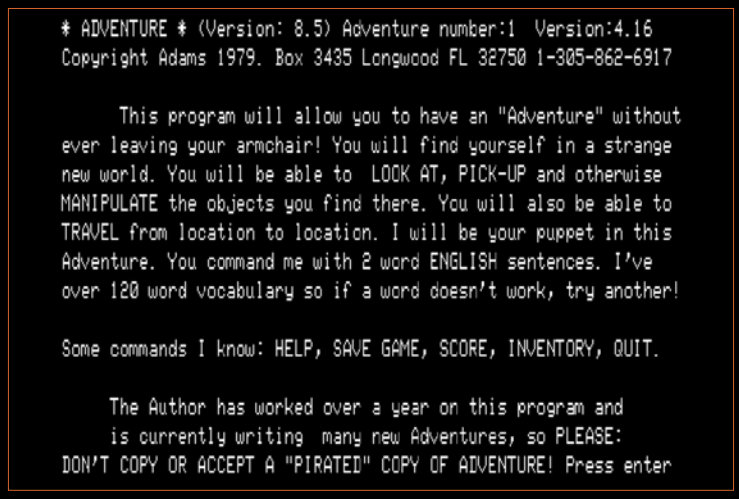

Written in a mainframe version of BASIC, it wasn't a game as such, more a framework for the construction of games. *Wander* enabled the creation of fantasy stories containing rooms, states and portable objects that could be affected by decisions made by the player. The original description refers to itself as "a tool for writing non-deterministic fantasy stories" - but it was much more than that, including some of the verb/noun and directional standards that would later be attributed to *Adventure*.

Langston created several demonstration games with *Wander*, including *Castle* where you explore a rural area and a castle searching for a beautiful damsel. He wrote other, more successful games such as *Empire,* and later went on to work for LucasArts.

A copy of *Wander* has recently been discovered buried in a software distribution from the Usenix 1980 conference. Enthusiasts are currently working on Windows, Mac and Linux ports of the source code.

# COLOSSAL CLONES

***Adventure*** **has appeared across virtually every computer format in abridged, full or expanded guises.** **Classic Adventurer** **starts its journey standing on the end of a road, and peers into a small brick building that houses a few notable examples.**




## ADVENTURELAND

*Scott Adams, 1978*

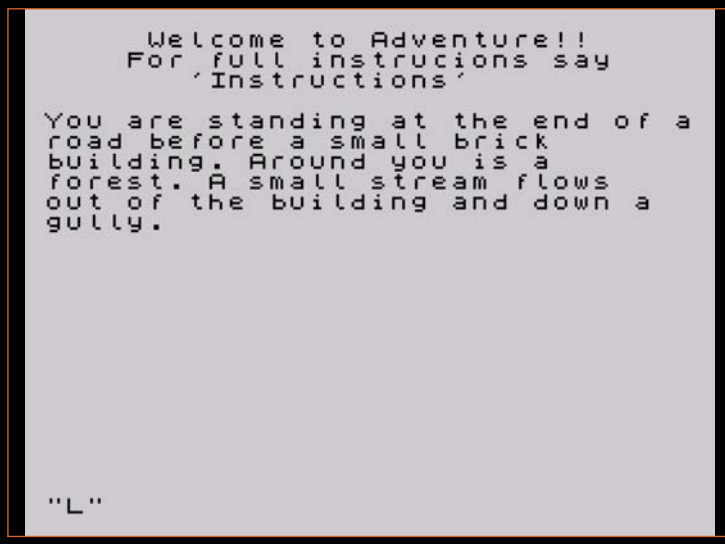
Inspired by *Adventure*, Scott Adams created his own minimalist version, *Adventureland* for the 16K Radio Shack TRS-80 computer in 1978. He had the idea to produce an adventure interpreter, a rudimentary "adventure engine" that would enable him to easily create other games. *Adventureland* was soon converted to a wide range of machines, and can be credited as the first mainstream commercial text adventure available on home computers. For many it was their first exposure to the genre.


## MICROSOFT ADVENTURE

*Microsoft, 1979*

Written by Gordon Letwin, *Microsoft Adventure* was among the first four products sold by Microsoft in a new division created to sell software to consumers.

The game is completely faithful (albeit with an extra 'software den' room in a nod to Letwin's full-time job) to Crowther and Woods' program by cleverly accessing the original's huge databases via a required floppy disk drive. It was one of the first games to be retailed professionally and Microsoft released a version of its *Adventure* in 1981 with the initial version of *MS-DOS*.




## ADVENTURE I

*Abersoft, 1981*

One of the earliest text adventures to appear on British home computers was Abersoft's *Adventure I.* It was written by John Jones-Steele using Ken Reed's 1980 article in Practical Computing describing an adventure game interpretor. Jones-Steele packed a faithful reproduction of *Adventure* into 13K, including the majority of the original's locations and puzzles, albeit with shorter descriptions and a lesser points tally required to complete the game.

*Adventure I* was expanded to 32K in a new version for the ZX Spectrum machine, and utilised the same separate game engine and database as per Reed's instructions. The game was re-released by CP Software as *Colossal Caves*. In 1983 Melbourne House re-released and ported the game onto a wide range of micros giving it greater mainstream prominence as *Classic Adventure*.

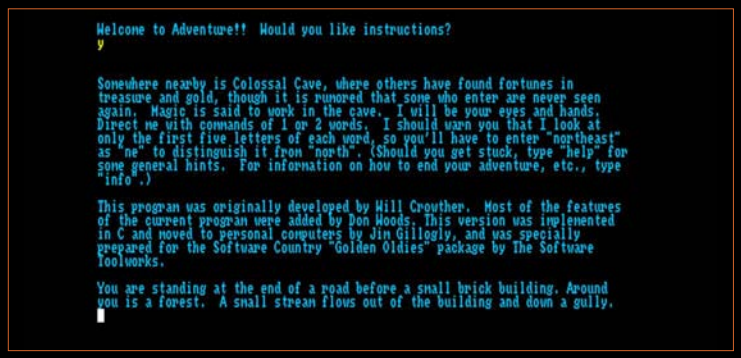
## THE VERY BIG CAVE ADVENTURE

*CRL/St. Brides, 1986*

Not even the great Crowther and Woods could escape lampoonery, and *Adventure* fell foul to a terrific parody from the ladies of St. Brides in the form of *The Very Big Cave Adventure* in 1986.

Trixie Trinian guides us through a game full of puns, jokes, and comic put-downs in this cracking spoof. There's lots of familiar locations, most with a twist though, for example the famous well house has a spring, but not of the watery kind, and several other surprises await, such as the inclusion of a *Space Invaders* room where you can play the game in text form.

It has the usual *Quill'd* polish from a CRL title and even includes sounds, visual effects and a RAMSAVE feature.


## THE ORIGINAL ADVENTURE

*Software Toolworks, 1981*

Software Toolworks sold a modified version of *Adventure* in 1981 as *The Original Adventure*. It was endorsed as being "in the spirit of the original game" by Crowther and Woods, in return for a modest royalty, and remains the only version of the game to pay the duo.

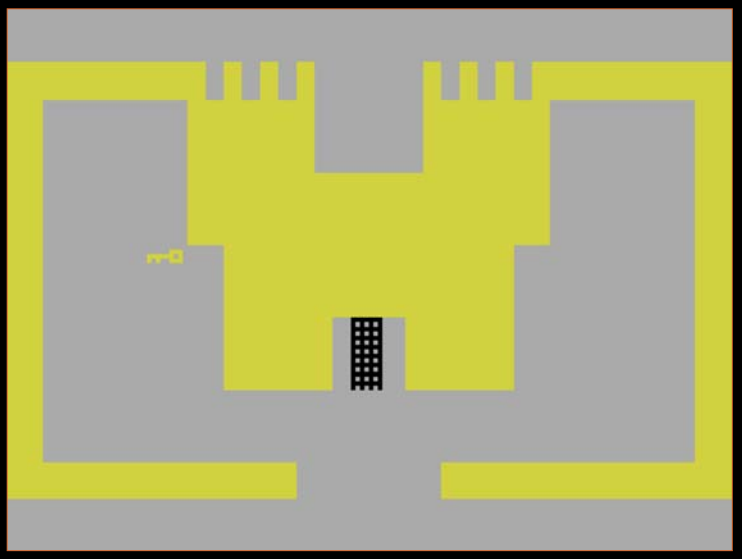
Any player who earned all the points and found all the treasures were shown a secret that could be sent to the publisher in return of a Certificate of Wizardness signed by the authors.


## COLOSSAL CAVE ADVENTURE

*Duckworth, 1985*

Jim Butterfield created one of the first *Adventure* clones for the Commodore range of computers with his version of *Adventure* for the PET in the late 1970s.

Butterfield's version required a disk drive to store and access data, so would be unsuitable for the British cassette-based market. This version was coded by adventure royalty Peter Gerrard. He created a port called *Colossal Cave Adventure* for the more accessible Commodore 64 and Amstrad computers in 1985.



## ADVENTURE

*Atari, 1979*

Okay, okay, so we may just be stretching the limits of imagination to include Warren Robinett's 1979 version of *Adventure* as a true text adventure. But, it's ambition alone is worthy of discussion, and displays a feat of programming that stands alongside Scott Adams and the Austins of Level 9 for its sheer genius.

Robinett was inspired by a visit to Standford Artificial Intelligence lab where he spent many hours playing *Colossal Cave Adventure*. It was June 1978, and he worked for Atari, where he was charged to write a new game for the Atari 2600 home videogame console.

His design had the player moving around with the joystick, showing one room at a time on screen and showing each object in the room as small graphics. It was the game's major innovation - the idea of moving through a network of screens that matched some of *Adventure's* locations meant that the action of the game could take place in much larger and more interesting space than the single-screen experience of most videogames of the time.

He reduced Adventure down to around 30 rooms, and begin making each of the characters and objects into recognisable objects. The characters moved, all with a basic form of artifical intelligence, and all crammed into 4K of cartridge ROM. Robinett told Wired.com in an interview "I even had 15 bytes of RAM left over. There was room to do three more dragons if I had chosen to do so, but it seemed to be working pretty well. I guess that's what you'd call game balancing nowadays."

It was hugely ambitious and complex at the time, blurring the lines of adventures, role-playing and rogue-alikes into one game. It even had one of the first examples of a videogame "Easter Egg" - a secret room that had the author's name within in.

## COLOSSAL ADVENTURE

*Level 9, 1982*

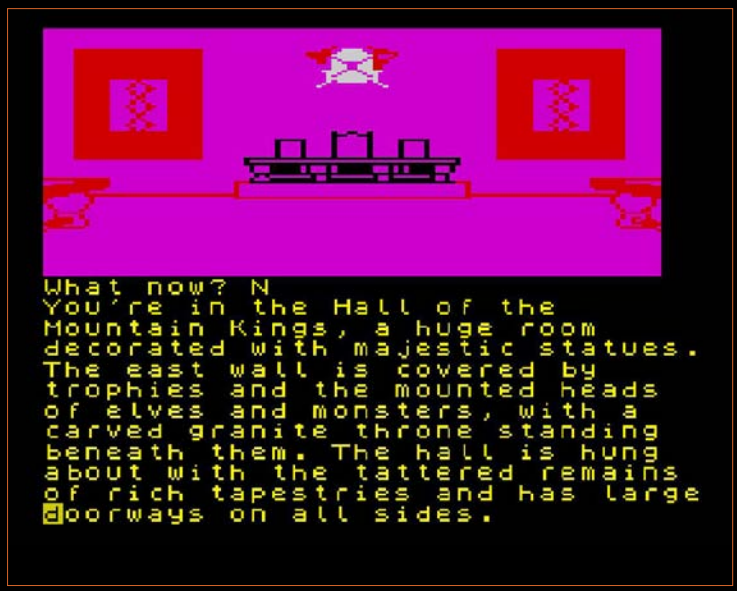
Whilst working at a mainframe manufacturer and distributor Peter Austin discovered *Adventure* during one of his lunch breaks. He spent hours solving the game and set his sights on something pretty ambitious - a full conversion to a NASCOM machine with a paltry 32K of available RAM.

Working with his brothers, they formed Level 9 and devised a re-usable adventure system in a language they dubbed A-Code. It was so ultra-efficient at compressing text they were able to expand the original game's location count to 200, add extra puzzles and implement a cunning new end-game sequence. They called their new version *Colossal Adventure*.

Because A-Code was machine independent, it meant that *Colossal Adventure* was ported to almost every other home micro at the time. The Nascom, BBC, Spectrum, Commodore 64, Oric, Atari, Lynx, MSX and Enterprise all received a version.

If you didn't own Melbourne House's *Classic Adventure*, then you'd own Level 9's *Colossal Adventure*.

It was later re-released as part of the *Jewels of Darkness* trilogy alongside it's sequels *Adventure Quest* and *Dungeon Adventure*. This 1986 version was significancy revised to incorporate the latest version of A-Code which allowed for the inclusion of location graphics alongside the descriptive text.

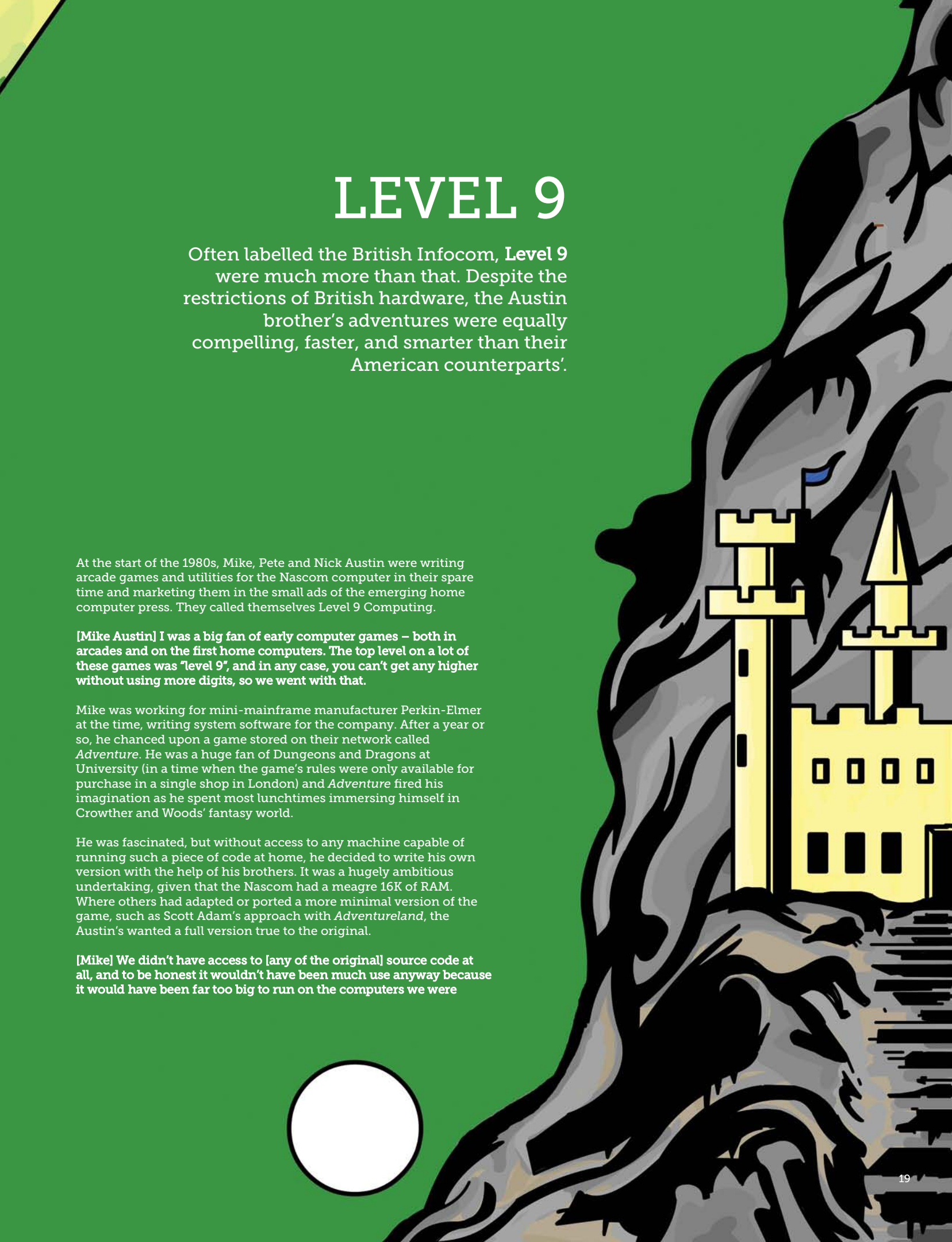

## DELVING DEEPER

*More caves to explore ...*

*Colossal Caves*, Spectrum, Anubis, 1985
*Adventure*, BBC/Electron, Micro Power, 1983
*Adventure*, Apple II, Frontier Computing, 1981
*Zork*, PC, Infocom,
*Acheton*, BBC/Electron, Acornsoft
*The Serf's Tale*, Spectrum, Players, 1986
*Analog Adventure*, Atari, Analog, 1981
*Pyramid 2000*, TRS-80, Radio Shack, 1979
*Adventure*, Kaypro II, Quest, 1983
*Adventure*, ZX-81, Bug-Byte 1982

# LEVEL 9

Often labelled the British Infocom, **Level 9** were much more than that. Despite the restrictions of British hardware, the Austin brother's adventures were equally compelling, faster, and smarter than their American counterparts'.



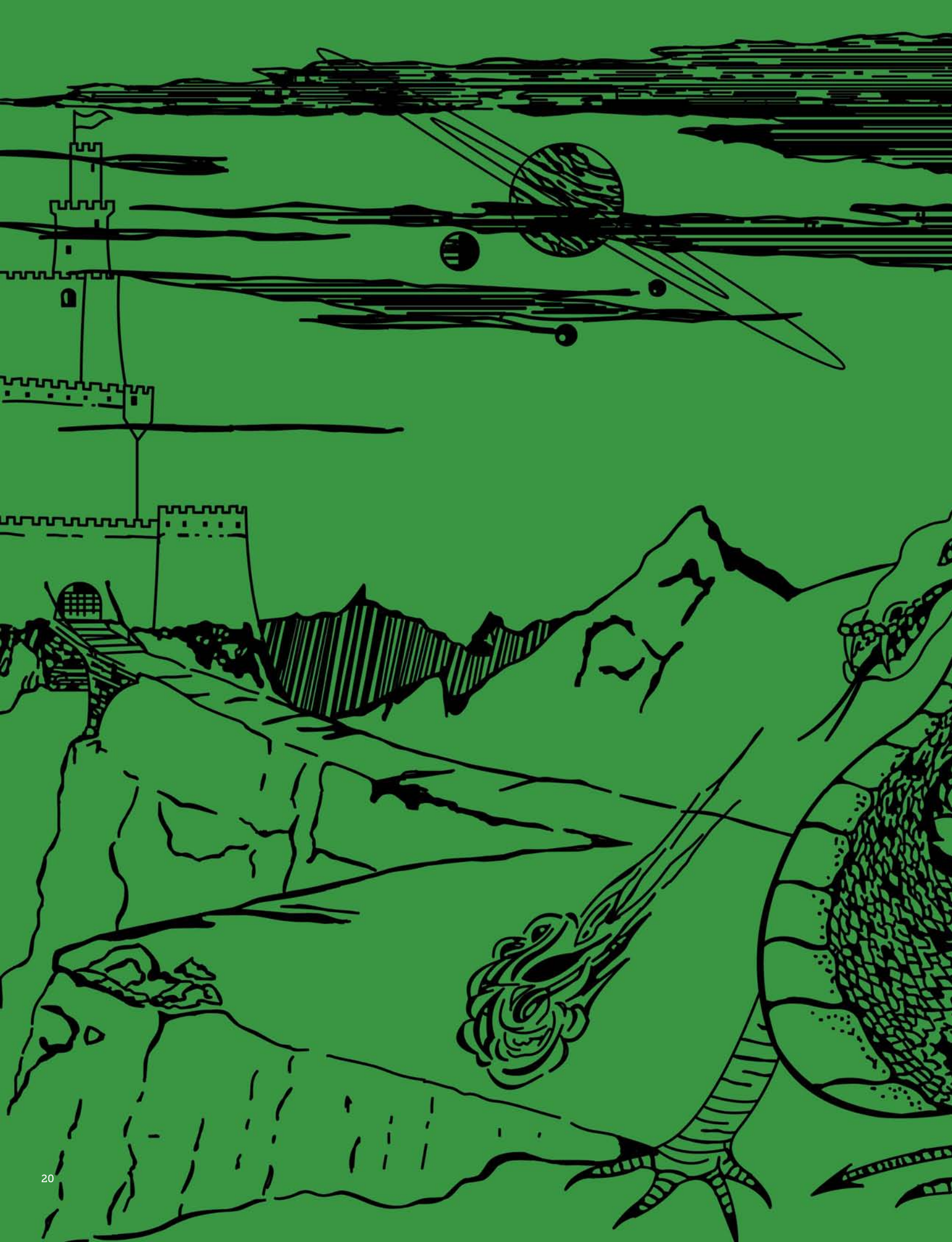
At the start of the 1980s, Mike, Pete and Nick Austin were writing arcade games and utilities for the Nascom computer in their spare time and marketing them in the small ads of the emerging home computer press. They called themselves Level 9 Computing.

**[Mike Austin] I was a big fan of early computer games – both in arcades and on the first home computers. The top level on a lot of these games was "level 9", and in any case, you can't get any higher without using more digits, so we went with that.**

Mike was working for mini-mainframe manufacturer Perkin-Elmer at the time, writing system software for the company. After a year or so, he chanced upon a game stored on their network called *Adventure*. He was a huge fan of Dungeons and Dragons at University (in a time when the game's rules were only available for purchase in a single shop in London) and *Adventure* fired his imagination as he spent most lunchtimes immersing himself in Crowther and Woods' fantasy world.

He was fascinated, but without access to any machine capable of running such a piece of code at home, he decided to write his own version with the help of his brothers. It was a hugely ambitious undertaking, given that the Nascom had a meagre 16K of RAM. Where others had adapted or ported a more minimal version of the game, such as Scott Adam's approach with *Adventureland*, the Austin's wanted a full version true to the original.

**[Mike] We didn't have access to [any of the original] source code at all, and to be honest it wouldn't have been much use anyway because it would have been far too big to run on the computers we were**



**targeting. We started off just trying to re-create *Adventure* as I wanted to play it. We [worked through the game] solving the puzzles and I think we probably had access to a printout of the game text too.**

For the challenge ahead, The Austin's built themselves a development system around the Nascom and then later used the brand-new BBC Micro with Torch CP/M extensions and a Z80 assembler. Instead of using some of the available adventure interpreters that had been documented, they decided to use their knowledge and expertise and create their own language for adventure creation, one that they named Austin-Code or Adventure-Code, or A-Code for short.

**[Mike] I'd previously created a language called "Q1", which was designed to be extremely quick to execute, be very compact, and portable across computers. We used that to create some early arcade-style games like *Nightmare Pork*, [and] various versions of *Space Invaders*-style games. Some of these got published, although mostly only on the Nascom, so the market was tiny.**

As with many other authors at the time, the foresight to create a language and game interpreter that was portable to many other home computer formats, either existing or those that would arrive in the future with the minimum of fuss was truly visionary.

**[Mike] When I came to look at creating the adventure games, we had two main objectives. To create games that would easily port onto lots of different home computer systems, without re-writing, [and] be totally portable. And to create very compact code, so we could fit sophisticated game logic into a very small amount of memory. None of the languages around at the time fit these requirements, so I created A-Code.**

**A-Code source looked a bit like BASIC and created extremely small**

**object and executionable files. This was designed from the start to work well for adventures, so it contained instructions to handle user input and to output, without the author having to worry about parsing English input or handle text compression.**

The effort required to be compact and efficient was paramount for developers in the British market. Infocom, the US giants blazing a trail at the same time, had been able to bring sophisticated games to market much earlier, but had relied on a £40 price tag, an enormous domestic market and an abundance of disk drives in many homes. British developers had none of these luxuries and the limitations of cassette-based storage. Infocom didn't have to worry about hugely optimised fast and efficient code, and in many games the response time was slow. But, creating compact and efficient code was one side of the A-Code package. Compression would be the key to cramming as much data into the small memory footprints of home micros and the text in a text adventure was the obvious area of data to target.

**[Mike] We went through several iterations of text compression algorithm over the years, all proprietary. The first one was, I think, based on Huffman encoding plus some dictionary lookup for common words.**

**As with the text compression, we compressed the object code to squeeze every conceivable jot of functionality out of every byte. So we used similar techniques – variable length instructions, instructions which contained common data values, etc. The first version achieved really good compression results. The later versions achieved staggeringly good compression, and were also used to help with parsing user input.**

Their version of *Adventure* was named *Colossal Adventure*. It was an amazing achievement, managing to reduce an entire mainframe game into such a limited machine. In fact, their effective design of A-Code had yielded another unexpected and incredible bonus – an amount of memory that remained unused.

**[Mike] We targeted computers down to about 8K. I have a feeling we may have done a 4K version at some point. The text usually compressed to about 25% of its original size.**

**We realised that with the compression techniques we'd created, we could go way beyond [*Adventure*], and we created a whole endgame with (from memory) about 70 additional rooms which weren't in the original. We tried to avoid "key and lock" puzzles where you need to get a key from one room and take it to another room. These get boring fast. We tried to be more inventive than this.**

In the original *Adventure*, the game finished when you picked up the final treasure and the cave announced that it was closing down. You then had to get out in time before the game ended. Pete told Page 6 magazine in 1988, "The only thing that we actually moved is the food which we put in the forest. It was really because there was a lot of forest around, nothing actually to do with the game."

*Colossal Adventure* sold a few thousand copies on the Nascom. It was not enough to sustain an income or be commercially viable at first, as the Austin's felt more like hobbyists rather than out to earn a living.

As the home micro market grew and more machines appeared the value of A-Code's portability was clear. It allowed Level 9 to create games for every one, and being the first onto new machines brought the commercial advantages of being big fish in a small pond.

By the end of 1982 two sequels had arrived, *Adventure Quest* and *Dungeon Adventure* offering the brothers the first chance of writing a narrative beyond the *Adventure* mindset.

Mike told Page 6 magazine "*Adventure Quest* was the first game I designed from scratch and it's a very linear game. You go through about eight different zones but you have to do them really in order [...] *Dungeon Quest* [...] is where you can wander around in a reasonable area and there are groups puzzles within that. If you get blocked on one group you can go and try another area."

The three games soon were nicknamed *The Colossal Trilogy* or the *The Middle Earth Trilogy* - a moniker that Pete Austin was in favour of as it "gave the players and buyers a sense of what to expect in the world". The Tolkien and Dungeons and Dragons influences were soon left behind in deep space, as the next game moved into the science fiction genre with *Snowball*.

**[Pete Austin] We wanted to do something different. There were a lot of sub-Hobbit adventures about, in which you went around slaying orcs. I was afraid the public would get fed up. If you keep doing games within a single genre, they compete with each other. Some people want to play every game with orcs and trolls (or whatever) but most people play one and than move on for a while. So it's good marketing to mix up your subjects. I read several thousand SF books when younger. My favourite authors included Bradbury, Asimov, Heinlein, Leiber, and Moorcock. More recently: Haldeman, Simmons, Gibson. My preference when writing is "hard" science fiction, that tries to be real and has a well-developed back story, as distinct from space opera or fantasy. If I had to pick one influence, then Heinlein.**

*Snowball*, named after Snowball-9 the spaceship where the adventure is set, followed the journey of two million colonists in hibernation, headed toward their new home on a planet called Eden. During the transit, one of the occupants is unexpectedly awoken from stasis in order to combat a member of the ship's crew that has turned rogue.

The woken colonist, an agent fortunately placed upon the mission to counter any threat to the ship, was perhaps one of the first female protagonists in an adventure game. She was called Kim Kimberly, named after a street close to where Pete was living in Bracknell. At the time, the game's press and documentation (in the most) used the gender-neutral Kim without reference to a pronoun.

**[Mike] It was a deliberate choice, but we didn't want to create a character where the gender was used as a primary plot device.**

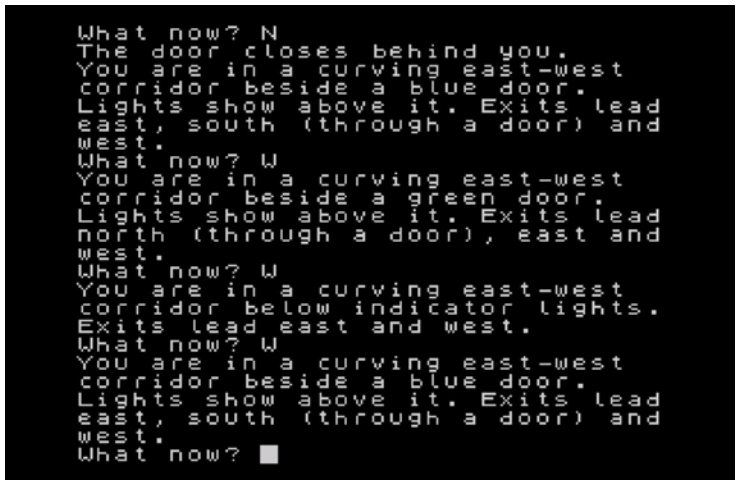
**[Pete] I thought it was fun to have keep the hero/heroine's gender unspecified until the end, because it didn't matter for any of the puzzles, and then reveal that she was female. One of the things that you can only do when writing for a text-only medium where the text is *very* short and the characterisation is largely in the player's mind.**

The gender speculation laid to rest by the Austins was also clarified when the game's packaging referenced "Miss Kimberley's Wardrobe". There's no other reference within the game, and as Pete indicated it was therefore left to the player's own imaginations to determine. Regardless, the discussion of Kimberly is fascinating, especially when reading press interviews from the time. Like their vision for A-Code, the words and thoughts of the Austin's seemed ahead of their time in discussion the importance of genders, especially when it came to players of adventures in a perceived male dominated world of videogames in the 80s.

In an ever-changing world there was the appreciation that traditional narratives could also take them into areas of controversy. An interview in Micro Adventurer magazine


**[Colossal Adventure]** Level 9's adaptation of Crowther and Woods' classic, and an incredible demonstration of programming genius. Their efficient A-Code adventure system squeezed the mainframe masterpiece into home micros with room to spare for an expanded game.


**[The Archers]** The collaboration with Mosaic Publishing led to several multi-choice parser titles for Vicky Carne's company. *The Archers* was by far one of their least successful games commercially, but is packed with witty text and clever plot lines.




**[Snowball]** The best of the *Silicon Dreams* trilogy, and perhaps the best 8-bit adventure from the Austins. Play heroine Kim Kimberly in this sharply crafted science fiction epic, boasting almost 7000 locations!


**[Gnome Ranger]** With it's razor-sharp humour, Ingrid Bottomlow's debut game underlined Level 9's reputation as one of the most versatile and original text adventure houses in the gnown world.


**[The Price of Magik]** Following *Red Moon*, *The Price of Magik* perfected the use of magic lore, and skillfully mastered the balance between Dungeons and Dragons, RPG and text adventuring elements.


**[Scapeghost]** Their last stylish adventure, showcasing some of the best 16-bit graphics of the time. *Scapeghost* is an intricate and atmospheric adventure with a haunting storyline of ghostly revenge.

showed Level 9 struggled with racism and sexism in traditional stories and fairy tales, dropping a plan for a game called *Island* in the process. It was quite radical thinking for the mid-80s.

**[Pete] I wanted to get close to 50% male/female lead characters, because that seemed fair and more fun. This got a bit exaggerated because other authors were sticking with the male-hero archetype and so journalists tended to include it.**

*Snowball* was also a game that courted controversy for its bold claim of containing 7000 (yes, 7000) locations. There was a general industry preoccupation with location numbers, it always looked good on boxes and adverts, but it wasn't necessarily an indication of quality - as John Wilson and Zenobi proved with the *Behind Closed Doors* series. We were in the infancy of the industry.

**[Mike] We wanted to give value to buyers, and this was a good rule of thumb. There was a bit of a war between adventure game creators at the time about the number of rooms, and we wanted to set a number that would be very hard to beat! They were genuinely 7000 locations, although the descriptions were – to say the least – rather repetitive.**

During the development of *Snowball's* sequel, many unsolicited game designs began to land on the doorstep of Level 9, including one set in the Bermuda Triangle that the brothers liked, but ran out of steam attempting to progress the design.

**[Pete] This was the problem. Lots of people sent us a one-page idea for a game, but when we said, "That's really great, but we need it 10x bigger, and then we'll pay for the design", almost everyone dropped out. Very disappointing because it should only have taken a few weeks.**

## LEVEL 9 IS THE MAGIC NUMBER

The Austins wove personal and political references into many of their games, including the addition of the number 9 - for obvious reasons. *Lords of Time* is one example that has 9 levels.

**[Below]** Stumped players were able to return the enclosed "Fly Back With A Clue" envelope to receive a free Level 9 hint sheet.


Kim Kimberley from *Snowball*. One of many Tim Nayce artworks that were included in early Level 9 packages.

**[Mike] Most of them were just ideas with no real substance. Creating a full game design is a lot of work – comparable to writing a novel.**

One submission that did catch their attention was written by Level 9 and adventure fan, Sue Gazzard. "I've been known to stay up till 2am. I found adventures fired my imagination," she told Micro Adventurer. Level 9 took Sue's idea, and after a little tinkering by Pete, with the addition of several new puzzles they were delighted with the result and released the game as *Lords of Time*.

**[Pete] Sue produced a nice game design, which was different from my ideas. We were soliciting ideas at the time. She sent a letter with the design on paper – printed I think. I got her to extend it, then added several more puzzles myself.**

**[Mike] We spent quite a long time working with Sue and going through iterations. Then we did more work on the puzzles. It was a rare occurrence to receive a submission worthy of converting into a fully blown commercial release.**

A second design by Sue, called *Neptune* was deemed too one-paced and she moved on, rumoured to have started working for Mastertronic, in conjunction with Roy Carnell [formerly of Carnell Software]. The planned "epic" game marketed under the Mastervision label never materialised and disappointingly Gazzard didn't appear on any subsequent game credits.

*Return of Eden* was the long-waited sequel to *Snowball*, and it was in exploring this source material that Level 9 showed their versatility and began to establish themselves as one of the great adventure writers of the 8-bit era. Thomas A Christie in The Spectrum of Adventure remarked "*Snowball* and its sequel[s] would be the closest that [Level 9] would come to replicating the entertaining the complex sci-fi environment of Steve Meretzky's legendary Infocom duology, *Planetfall* and *Stationfall*." It was worthy praise indeed.

*Return to Eden* [featuring Mike's favourite artwork], found hero Kim marooned on the deadly paradise of Eden after a dramatic turn of events since the end of the first game. It seemed that she'd been blamed for the damage caused to the spaceship and was exiled to the planet's surface awaiting execution. The game saw the player attempting to help Kim escape from the dangerous faun and fauna of the planet, as well as it's deadly robotic population.

To complete what would become *The Silicon Dreams Trilogy*, Level 9 released *The Worm in Paradise* later in the same year – albeit a century later in the timeline from the preceding two adventures, and thus without Kim Kimberly.

*Snowball* retained the tradition of text only adventuring, but with *Return* and *Worm*, Level 9 had tweaked A-Code to allow the inclusion of location graphics for the first time. As with the location count, the inclusion of graphics became a commercial pressure, and for most adventure writers an unwelcome one.

The balance between the quality of graphics and depth of text was difficult to achieve. Many authors took a multi-part approach to fitting graphics alongside a decent sized adventure, but for cassette owners it was tiresome and laborious having to load each section. The Austin's took a different tack, aiming to keep games to a single load. They continued to adapt A-Code, with each game release featuring an incremental, but still largely-backwards compatible engine, and they managed superhuman compression rates of text. Later versions of the compression system got this down to a miniscule 15% of the original size.

Even with the extra space, the quality of the graphics produced were suspect and not up to the visuals seen in multi-part games, or games such as *Heroes of Kahn* from Interceptor Micros who sacrificed the number of graphics for a higher quality image.

**[Mike] We had to add graphics because competitors were starting to do so. We were trying to create a picture in less storage than is used today in the header of an email, so we created the minimum graphics that would create the impression we were looking for.**

**[Pete] We had a portable programming system, A-Code, but it turned out to be very difficult to produce similarly-portable graphics in the space available. Digitising artwork didn't work well enough because these home computers had too few colours. And fully digital art based on polygons was very labour-intensive.**

It was their most productive time. Between 1983 and 1985 they had released 12 games, and pushed the boundaries of what A-Code could achieve. The structure of the company evolved to meet the growing professionalism and demands of the market, including the presentation of their product. From the start they'd developed a trademark brand of packaging, at first with Ziploc, homegrown packages, but changing to include large oversized cardboard boxes with line artwork, and then a more industry standard wallet and clam case. Later releases featured superb artwork by Godfrey Dowson and included many additional items offered to give customers a better deal – such as posters and hint sheets. Their cottage industry duties of creating everything to do with packaging and fulfilling cassette duplication was behind them.

"We had to add graphics because competitors were starting to do so. We were trying to create a picture in less storage than is used today in the header of an email"

**[Mike] Tape copying (first at home, then by outside duplicators) was always a pain and a source of customer frustration due to bad tapes. We spent a lot of money on getting good quality tapes to combat this.**

1985 had also seen Level 9 take on extra staff and contracted external writers to maintain their productivity. *Emerald Isle* was the first game to take advantage of an external freelancer, Shaun Abbott, which left the Pete free to work on another seminal title with another new member of the team, David Williamson.

Pete and David's new game, *Red Moon* was a move towards a hybrid adventure, with strong elements of combat and role playing (an introduction of a health system or "hit" points), combined with a highly developed system of spell-casting (CAST ZAP for example). It was another standout title, winning best adventure of the year in a slew of magazines including ZZap!64, Amtix, Crash and C&VG.

With their reputation at its zenith its unsurprising that other publishers knocked on the door wanting to make use of their technology and creativity with other work. Virgin Games and new start up publisher Mosaic, headed by Vicky Carne, contracted Level 9 to work on several licenced titles. Sue Townsend's hugely popular books following teenager Adrian Mole were the subjects of *The Secret Diary of Adrian Mole Aged 13 1/4* released by Mosaic in 1985 and *The Growing Pains of Adrian Mole* by Virgin in 1987.

Both dispensed with the standard parser-based verb/noun experience and opted for multiple choice pathways.

**[Mike] The vision was to have interactive novels, and to aim to appeal**

**[Right]** Artist Oliver Frey captures the fearsome life on a distant planet in this *Red Moon* inspired cover for issue 20 of Crash Magazine.

**to a wider market than the puzzle-oriented audience for adventure games.**

The team could concentrate on the design and writing rather than writing code. Their A-Code language proved a flexible and adaptable platform and they had little problem making minor enhancements to the functionality to enable pre-determined pathways.

It was also a return to adapting someone else's work, as with *Adventure*, and writing content for a brand new audience. It's also ironic, and an indication of the state of the games industry that their least creative project in terms of intellectual property and story writing became their most successful with a rumoured 165,000 sales.

**[Mike] I think *Mole* actually appealed mainly to older people than our traditional audience. *Mole* was so hugely successful – by far and away our best-ever selling game. We worked very closely with Sue Townsend and I understand she was very pleased with the result.**

**[Pete] My main memory of *Mole* was working 20-hour days, because the release was brought forward by several weeks to tie in with a joint-marketing deal.**

That "huge pressure" had some effect on the quality of the game and left some areas that could have been made better. Perhaps it was an indication that this developer/publisher relationship could affect their creativity and cloud their previous non-negotiable high standards of quality.

Radio 4's long running radio serial *The Archers* (another multiple choice game for Mosaic co-written by the BBC's scriptwriting team) was next, and *The Saga of Erik The Viking* based upon ex-Monty Python Terry Jones' book completed the licenced line-up.

**[Pete] [*Erik The Viking*] was great and we based other puzzles on Viking myths. We met Terry in London and went to the Yorvik Viking centre for research. The pictures turned out great in my opinion. Very happy with that game.**

The final game in this golden era for the company was *The Price of Magik*, written by Pete and David Williamson. They returned to the fantasy worlds of the original trilogies, but dispensed with some of the traditional rules constraining adventures. Set in a magical equivalent of earth, *Magik* expanded on the magic systems of *Red Moon*, and saw the player as a novice spellcaster attempting to become as powerful as crazed sorcerer Myglar, in order to defeat him and recover a powerful crystal.

New ideas were breathed into the game, and the need to solve all of the puzzles before completing the quest was removed. It was one example of trying to disrupt the genre.

The gaming landscape was continuing to evolve at such a rapid rate, and the 8-bit market, especially cassettes, was all but dead. A new direction for the company, and A-Code was needed. Richard Hewison's history of Level 9 noted "Level 9 employed the services of John Jones-Steele to write for them a new adventure writing system for their next generation of adventures." Steele, a veteran of adventure writing was engaged in an attempt to "devise a system that would allow for 'real' characters to inhabit the game worlds they created, and allow people to recruit them and have many characters performing the same task at once to solve certain puzzles."

**[Mike] It wasn't really a new version of A-code as such – just new capabilities for the core language/system. The NPC handling was rolled into all the games.**
**[Pete] We did [implement] a complicated NPC system based on (a) what we called "racetracks" so NPCs kept doing stuff even while you weren't there and (b) a system for giving commands to NPCs to they could go off and do stuff.**

Abandoning 8-bits and concentrating on development for the new 16-bit computers and consoles would take financial clout, both in terms of technology and marketing. They needed an injection of capital and the support to bring such games to market. Luckily, Telecomsoft, and newly formed offshoot label Rainbird, were looking for new products.

Tony Rainbird, the head of Rainbird, had wanted a new publishing label that was different from Firebird (Telecomsoft's main label) in regards to quality, content and price, and focused on 16-bit computing. His wish to publish cutting-edge adventures put Level 9 firmly in the spotlight.

**[Mike] They were able to pay us a large advance – much more than we were able to get from selling games directly.**

The deal included four titles spread across 8-bit and 16-bit formats, including updated versions of three existing Level 9 trilogies. *The Middle Earth Trilogy* was re-released as *The Jewels of Darkness*, and *Snowball*, *Return to Eden* and *The Worm in Paradise* were bundled together as *Silicon Dreams.* Both were given the full Rainbird treatment, with lavish oversized packaging, and the inclusion of a novella written by Peter McBride.

**[Pete] Peter McBride is a good author. The games were very limited in size, so the obvious way to make them more immersive was to include a novella about the back story, which he wrote and I edited. Some other publishers were doing the same.**

As well as the inclusion of a novella the games themselves were all revisited with several plot tweaks, more atmospheric text and a host of features including enhanced parsers and graphics on the new 16-bit versions.

**[Mike] [The new] 16-bit [versions] didn't really make much difference to us, it was the same A-Code that ported to both.**

The Austin's realised that for the 16-bit market they had to reconsider the direction of their adventures and their underlying code structure. Whereas A-Code was built to overcome the limitations of British hardware, the addition of 512MB of RAM and the ability to use disk storage meant that their early ideas for larger and more expansive games could be explored. There was also the emergence of a new adventure house making huge waves in British waters - Magnetic Scrolls.

The prospect of a more competitive market led to the start of a new development environment used to create their next game, *Knight Orc*.

Unfortunately the acronym to *Knight Orc* Adventure System (KOAS) didn't match the cooler sounding and more legible KAOS acronym which contained the same letters, and Mike credits that to the smart marketing department at Rainbird. KAOS was, it seems just a further iteration of A-Code not a brand-spanking new system, and was modified to include digitized Godfrey Dowson graphics. It emulated the experience of multi-user text games – something that they'd thought about with an earlier idea for a game called *Avalon* but discarded due to the capital costs.

Mike and Pete had set out to change the way adventures were perceived. With *Snowball's* Kim Kimberly they introduced the protagonist as a female. In *Knight Orc* they set the protagonist as one of the genre's traditional adversaries, a rather unpleasant Orc. Set across three parts of varying difficulty, *Orc* was published on the ST

and Amiga but ported back to the 8-bit market soon afterwards.

Jimmy Maher in his KAOS blog wrote "Boy, was it original. While Magnetic Scrolls was polishing up a more perfect *Zork* in the form of *Guild of Thieves*, Level 9 was seemingly trying to blow up just about every assumption ever held about the genre with *Knight Orc*. It all added up to the most radical single reimagining of the text adventure of the genre's commercial era. Infocom had played with more dynamic, responsive story worlds of their own, particularly in their first trilogy of mystery games, but never on a scale like this."

Given more time, and with the right backing from a patient publisher *Knight Orc* promised much, especially the evolving capabilities of the KAOS language. Through Rainbird though, the potential would never be realised - the relationship broke down when the man behind the label, and the driving force behind most of the products left the company.

**[Mike] "Everything changed when Tony Rainbird left. He was the man, as we saw it, who could get things done."**

With Rainbird departed, the final planned title for release – *Time & Magik,* was dropped and Level 9's contract was terminated by mutual agreement.

Without Tony, the Austin's felt that they had lost a valuable ally within the company, but speculation to the actual cause of the split was rife. On one side, Telecomsoft claimed unacceptable delays in development, and on the other rumour mounted that BT had spent more time and effort marketing and promoting the adventures of other UK text adventure stablemate – Magnetic Scrolls.

Now in publishing limbo, their next game in development, *Gnome Ranger* was self-published in 1987. Called the *Journal of Ingrid Bottomlow* it was another departure for the company, this time embellishing the small amounts of humour found in their other titles, to a game that was a fully blown comedy from the start.

**[Pete] [I was] just mixing it up. I like silly stories too. This started as a new take on "Cold Comfort Farm" [a comic novel by English author Stella Gibbons].**

It was a return to the classic packaging of the early days, with a big, bold sized box, emblazed with the Level 9 logo and filled with posters. Like *Knight Orc,* it was ported back to a selection of 8-bit computers (albeit without graphics on non-disk drive systems), including a conversion to the commercially obsolete BBC Micro. Perhaps this was the ultimate gesture by the Austin's to provide just how adaptable and portable A-Code was?

*Ingrid* split the press, some loving the humour, others not able to grasp the surrealism and the addition of other jokey elements – such as prefixing every word beginning "N" with "G", such as GNORTH. The Games Machine said "perhaps it's the plot, it is so far out of context with reality that it cannot possibly be believed", whereas ACE magazine wanted more of the same saying "*Gnome Ranger* has improved on *Knight Orc* in the puzzle stakes, atmosphere, plot, and the characters are more interesting."

Having severed their ties with Rainbird, Level 9 secured an exclusive distribution deal with a new label called Mandarin. It was the brainchild of former Micro Power and Superior Software marketing guru Christopher Payne. Mandarin picked up where Rainbird had left off and published *Time and Magik* – the trilogy endlessly delayed under the London outfit.

The original *Lords of Time* adventure had been sold as being the "first in the *Lords of Time* saga". Those two direct sequels never materialised, so *Red Moon* and *Price of Magik* were cleverly woven together with *Lords* to form the *Time and Magik* trilogy. Unlike the *Silicon Dreams* trio, *Time and Magik* was more a continuation of a theme than continuation of a storyline.

Mandarin were also offered *Lancelot*, a game based upon the legend of King Arthur and another nod to the interest in the abandoned *Avalon* project. Into the game a series of puzzles were engineered that linked to a real-life prize. A replica of the Holy Grail was produced, made of solid silver, semi-precious stones and plated with gold. Chris Payne was keen to boast about the value. "I think we paid about £2,500 for it to be made, so with a shop mark-up of 100% we felt that we could promote it as being worth £5,000." he commented on his website.

Around seven months after the game's release, in June 1989, a man called John Sweeney, a Systems Analyst with IBM and a lifelong Arthurian buff solved the puzzle and collected the prize. In a magazine article he explained how he beat the game, "I have always been interested in legend and myth, and [...] this competition gave me the chance to combine the two, but towards the end the clues were very hard and at times obscure."

It transpired that Mandarin was no place for the *Gnome*, and Bottomlow's second appearance *Ingrid's Back!* previewed at the 1988 PCW Show was self-published worldwide. *Ingrid* demonstrated that Level 9 were beginning to get into their stride with the KAOS version of A-Code, ironing out a lot of the bugs that had plagued *Lancelot*.

**[Left]** Ingrid Bottomlow, the intellectual-but-clumsy gnome from *Gnome Ranger* and *Ingrid's Back!*

**[Above]** Police officer Alan Chance attends his own funeral in the deliciously named *Scapeghost*.

They mastered the balance between humour and twee-ness of the narrative in *Ingrid*, and the NPCs, often confusing and shallow in *Knight* and *Gnome* now came to life bursting with character and believable behaviour.

*Ingrid* was certainly without doubt the most enjoyable and accomplished adventure since the *Silicon Dreams* trilogy and took the runner-up prize at the 1989 Golden Joystick Awards.

Despite the plaudits, sales of were very disappointing. Reportedly, *Gnome Ranger*: *Gnome Free* - a third instalment was designed and written, but coding was never initiated on any platform. Level 9 announced to a stunned press that *Scapeghost* (a wonderful name for a game) was to be their last adventure.

Pete told ACE magazine "We shall not be releasing any more adventures unless *Scapeghost* sells much better than expected. [...] Nowadays everyone wants animated graphics and arcade action." In development as *Spook*, *Scapeghost* was written by adventure veteran Pete Gerrard along with Sandra Sharkey. The plot followed an undercover police officer Alan Chance, infiltrating a drugs gang. The gang discovered Alan's identify due to a mistake wrongly credited to the officer, and killed him, taking a colleague prisoner. Akin to a Hollywood movie storyline that would follow a year afterwards, Alan is given a chance of redemption and is returned to the world as a ghost, given three nights to clear his name and gain revenge.

In terms of pure craft, *Scapeghost* didn't reach the heights of *Ingrid* and showed an underlying disenfranchise with the current adventure landscape from the company. But, it was a competent mixture of witty text from the writers, and one again showcased the pinnacle of A-Code technology, especially on 16-bit machines where its complimentary graphics were of such a high quality that they finally were comparable with Magnetic Scrolls' output.

But money talked, and sales continued to decline despite the rising quality of games. The final iteration of A-Code, moved from KAOS to a RPG creation environment called HUGE – the wHolly Universal Games Engine. Level 9 had travelled full circle to the Q1 language originally devised in 1979 to make portable arcade games.

## THE LOST LEVELS

Along with *Gnome Ranger 3*, several other Level 9 games remain in the wilderness. After *The Archers*, the Yes Minister TV tie-in with Mosaic was passed upon and Oxford Digital Enterprises took over development.

The rumoured Star Wars parody, *Bizarre Wars* or *Gross Encounters of the Worst Kind* written in conjunction with Fergus McNeill and Delta 4 had been started, but failed to make it further than an initial design. On the prospect of working with Delta 4, Mike said "[It would have been] a lot of fun! Fergus was so inventive and rather anarchic in his writing, a good balance for our tech."

After the sales of *Scapeghost* failed to secure the future of the company an animated mystery mansion game, that was almost finished was shelved.

One licence which eluded the brothers was Discworld. "Yes, we got some way towards doing a Terry Pratchet licence" muses Pete, "It didn't come off, and that's one of my big regrets. I think it would have been great!"

Level 9's final release (apart from a work-for-hire PC port of Cinemaware's *It Came from the Desert*) was *Champion of the RAJ*, a half-hearted *Defender of the Crown*-esque RPG published by PSS/Mirrorsoft. Magazine reviews were scathing. Their inexperience in the genre, and the infancy of their technology was telling.

The second HUGE game, *Billy the Kid* for Ocean was reportedly abandoned. Amiga Power magazine in their October 1992 issue featured *Billy* in a special about unreleased games. It contained a quote by Ocean's Software director, Gary Bracey, regarding the game's status: "It was not completed to our satisfaction and it wasn't fully debugged. It reached a point where we decided it wouldn't be released". Despite Bracey's comments it was released for the Commodore Amiga, in Germany it seems, and rare copies when they appear on eBay command hundreds of Euros.

It was a tragic end to an era, and the sad end of an extraordinary company that created wonderful games for almost ten years. As per the majority of British publishers, they were never able to take advantage of the American market, to compete with Infocom and secure the levels of sales that could have taken them well into the next decade. For the record, a few games did make it across the pond and did okay, notably *The Jewels of Darkness* trilogy published by Firebird.

**[Mike] We were flattered by [the Infocom comparison]. We had huge respect for [them] – they created great games which we enjoyed playing. At the time, the two markets were very different. We didn't even have access to most of the popular platforms over there, for example the Commodore Pet in the early stages. In the later stages, due to piracy, we didn't have the money to spend on trying to enter the more mature USA market.**

**[Pete] The main problem we had was with piracy. Something like 10 people played our games for each 1 that bought them. This meant that we could never make enough money for it to be viable, and gave a huge advantage to the consoles that came to the market in the late 80s, and which were piracy-proof.**

Level 9 obituaries will always make the unfair comparison between themselves and Infocom, and undeservedly never puts the former on the same level as the latter. American blogged Jimmy Maher commented "their catalogue is a hard sell to modern players in comparison with that of Infocom and even Magnetic Scrolls." For some games that was true, but Infocom and Magnetic Scrolls never tried to match the sophistication and efficiency of technology that Level 9 achieved either.

Up until the end they refused to cast aside their support for 8-bit computers, and for some baffling reason produced hamstrung cassette versions of games. Though A-Code was the ultimate language for portability, much effort, time and money must have been spent optimising text for the various versions, and the technical implementation of multi-format disks seemed a costly distraction too.

Perhaps abandoning the 8-bits earlier and concentrating solely on taking full advantages of the 16-bit machines the final outcome may have been different, but I suspect the technical challenge was part of the attraction for the Austin trio. As a technical innovator their vision and achievement was unsurpassed, and as a great British adventure creator they left a legacy of some wonderful games.

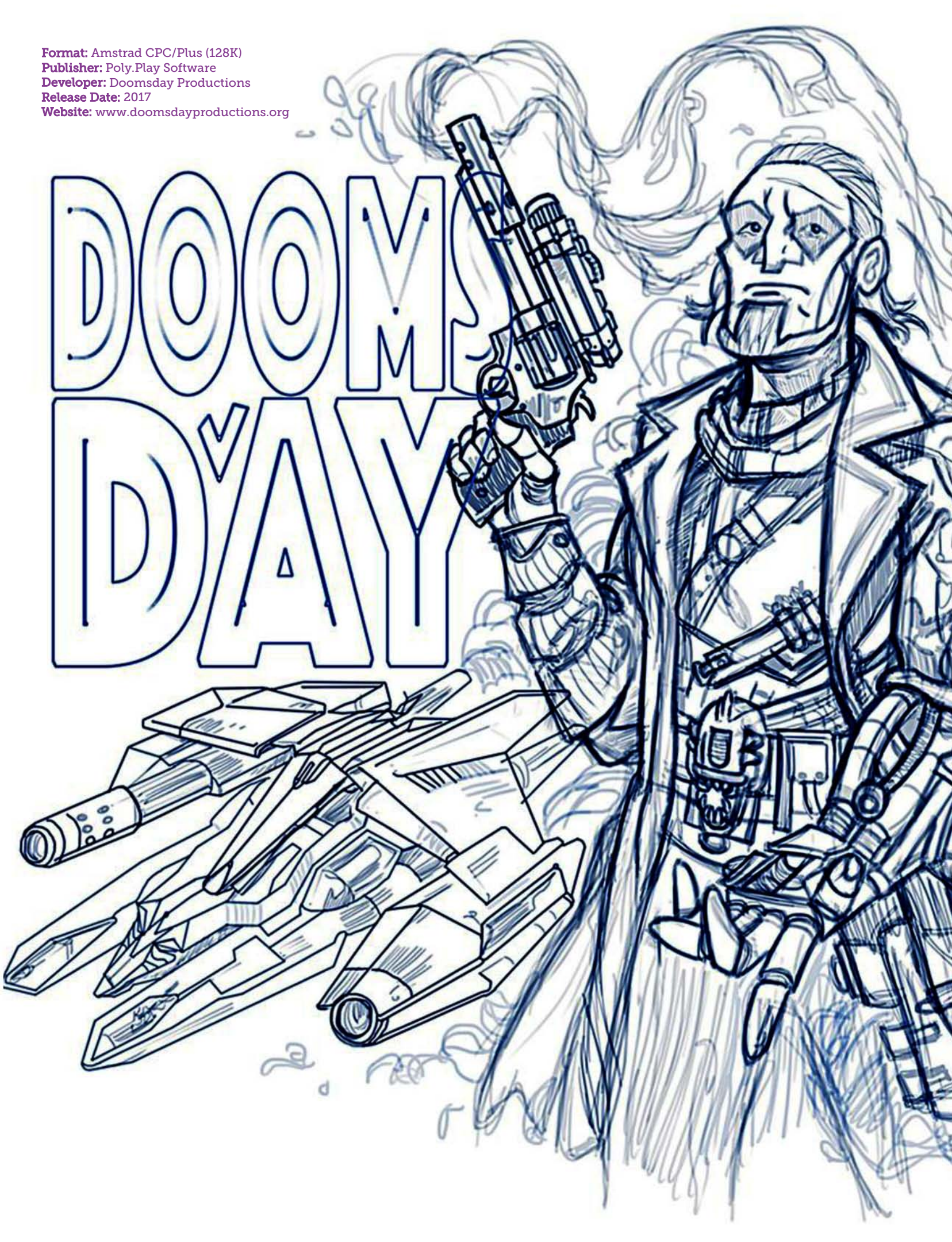
# DESERT ISLAND DUNGEONS

As their vessel is consigned to Davy Jones' locker, the Austin brothers, **Mike** and **Pete** row to safety upon our desert island with only five adventures to pass the time.

## Any 3 Infocom games plus *Scapeghost* and *The Jewels of Darkness*.

## I know that's a trilogy, but we make the rules here.

**Format:** Amstrad CPC/Plus (128K)
**Publisher:** Poly.Play Software
**Developer:** Doomsday Productions
**Release Date:** 2017
**Website:** www.doomsdayproductions.org



# DOOMSDAY LOST ECHOES

**The Classic Adventurer** is blasted into space with **Alberto Riera**, who, alongside Daniel Castaño has created *Doomsday Lost Echoes* - a sumptuous graphic text adventure that extols the technical capabilities of the Amstrad CPC computer.

Born in 1980 in Gijón, north of Spain, Alberto Riera's love of computer games and programming started with the Amstrad CPC6128 - a machine popular in continental Spain, having been successfully exported alongside the ZX Spectrum computer.

Spain nurtured a strong adventure market with companies like Aventuras AD [founded by Andrés Samudio after splitting from Dinamic] producing outstanding titles using Gilsoft's *The Quill* and *Professional Adventure Writing System [PAWS]*.

**Tim Gilberts developed the *DAAD* for [Aventuras AD], a sort of super-*PAWS*, and they created a few wonderful titles using it: *Cozumel*, *Los Templos Sagrados*, *Chichen Itzá*, *La Aventura Original*, *Jabato* and *La Aventura Espacial*. Not many, but all memorable. Other studios published things as well: *La Guerra de las Vajillas*, *Don Quijote*, *Abracadabra* and *Megacorp* were all notable games.**

It was whilst chatting with a good friend, Daniel Castaño that the idea for *Doomsday Lost Echoes* [*DDLE*] emerged. They both wanted to get involved in the vibrant retro development scene and agreed that a text adventure would be an ideal vehicle.

**We wanted to contribute to the scene with our own little effort and, since I have always been in love with text adventures, it seemed the obvious choice for us.**

**Dani is a particularly kind person, with great talent and a brilliant mind. We have known each other for many years, way before we decided to develop something, and we use to have long conversations about videogames. Funnily enough, I came to know him because he is the brother of one of my best friend´s girlfriend and we were all living in the same city.**

In *DDLE* you play the part of Mike, a renegade and bounty hunter who is offered a huge payday to track down a man called Arnold Craft. Craft was last seen over 30 years ago on the space station Regus, which for some reason now lies abandoned and aimlessly orbiting another planet. The adventure starts as Mike boards his


**[Above]** Daniel Castaño alternative concepts for the game's protagonist.

**[Right]** The evolution of one of the game's early location graphics shows the commercial-grade high production values invested into *Doomsday Lost Echoes*.

craft, the Doomsday and makes the interstellar jump to the Pollux B system.

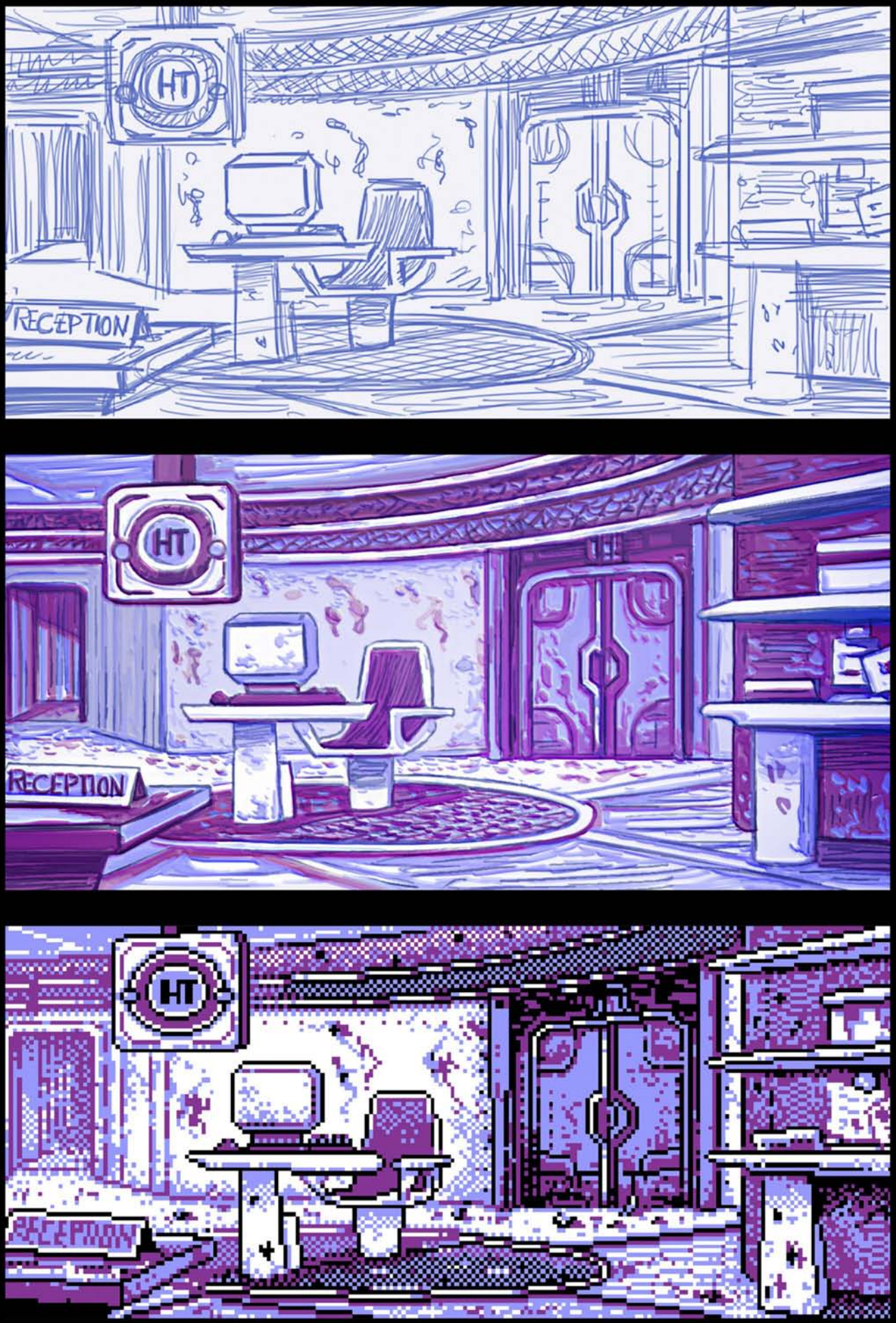
**We first thought about the historical context of our game. When and where it would be happening, how the humanity would have evolved in that distant future. We wrote quite a few pages full of lore until everything fell into place. Then, we came up with Mental Mike, that can be considered our personal incarnation of Mad Max. We wanted him to be a very capable individual, able to survive in the most dangerous situations, and we wanted him to be very cynical as well.**

**From here, we moved on to the idea of the derelict space station and we chose a very clear and simple goal: find the missing person. Then it came the first draft of the plot, that was greatly expanded with new suggestions from [another friend] Themistocles Papassilekas. We ditched some ideas that we thought were not OK for a text adventure and we came up with quite a few others. Finally, we started working on the real game.**

When Mike arrives at the Regus it quickly becomes clear that the station has been abandoned for a reason. As the plot unfolds, he realises that an infected crew member had brought a virus onboard and the resultant outbreak spread chaos and death throughout the station. It's not the most original of storylines, but it does hint at Alberto and Daniel's love of classic movies, games and pop culture.

**We wanted our game to have a little bit of all those things that made the sci-fi so great in the 80s: big space ships, crazy monsters, and impossibly hard-boiled mercenaries.**

**We took a little bit from Alien, Mad Max, Predator, Commando and Total Recall. Regarding the games, *System Shock*, *Dead Space*, *Doom* and *Portal* had a clear influence, but many others were important as well. We never tried to create something original, to be honest. The**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**idea was to let the player play with something that was "new" but very familiar at the same time.**

Unusually for a text adventure, three different conclusions to the story can be achieved. Each one offers a substantially different narrative and casts a contrasting light on events that have overtaken the space station.

**We had the idea from the very beginning and I am glad we took the decision from the start. Otherwise, it would have been very difficult to adapt the code.**

**We decided to have three endings in order to offer some incentive to the most veteran adventurers and, at the same time, to produce a game appealing to newcomers. It is easy to just finish the adventure, but a bit more difficult to find the second ending. The third one is even more convoluted, so there is value in replaying it. In any case, we did not want to make a difficult adventure, but an enjoyable one. People do not have so much time these days.**

Development began in 2015 and took a year and a half to complete, with the team working on the project during their spare time. A first beta was given to a band of trusted testers and the laborious task of bug fixing began.

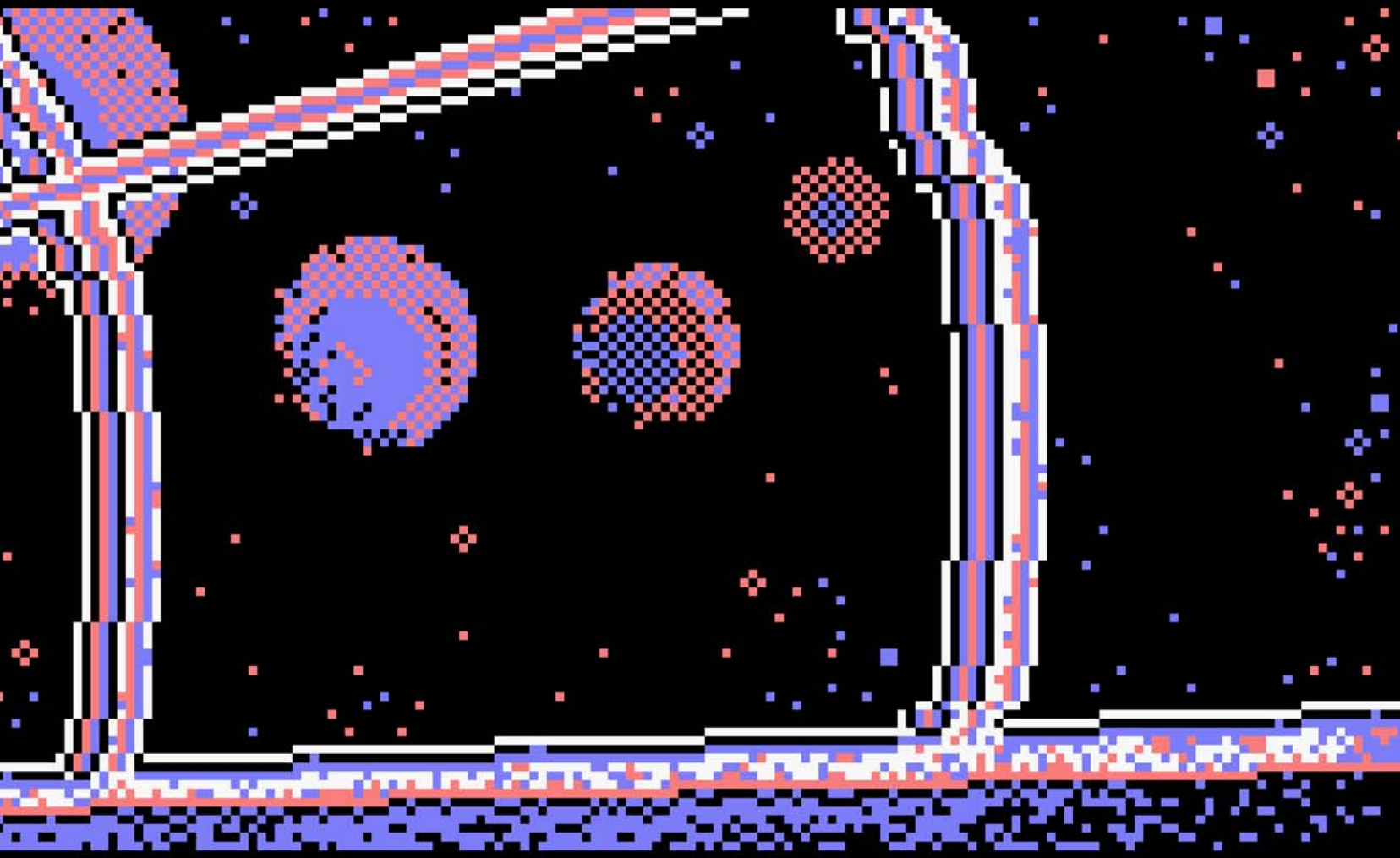
**We asked some veteran adventurers and newcomers to the genre for help. We chose seven testers and five of them found the commitment to finish the adventure and give us their feedback. All the bugs were written down and their suggestions taken into account. Some puzzles were made a bit easier, some others more difficult.**

Getting that balance right, proved to be one of the more difficult parts of the process. Though *DDLE* does have some more complex puzzles, they are designed to be solved in a straight-forward and coherent manner.

**There was a lot of discussion about them before they were implemented. We did not know if people would find puzzles too easy or too hard, and we wanted to keep all of them as logical as possible. At the end, the testers helped us a lot with this. There were a lot of people testing the game and many were veteran adventurers. Their feedback was essential.**

**We corrected all the bugs and we did some other polishing here and there. Finally, I checked the code around 30 times more - this is not a joke. Every time I checked there were new bugs, so I decided to go on and on until I was happy with the results.**

**[...] We decided to leave a few kilobytes of free RAM when the [game]**



**was released just in case they were needed to correct bugs and things like that. We had ideas of how to use them, but we decided that it would be better to be safe than sorry. Luckily, at the end, the extra RAM was used to add more lore, an easter egg.**

More on the Easter Egg later, but with Alberto satisfied, the first version of the game was released to the Amstrad community. It proved to be a double-edged sword and acted as a timely reminder of game development in the internet age - instant feedback and the visibility of conflicting opinions and tastes. In one example, a post complained that the game described events from a first person pronoun "I", rather than second person pronoun "you" in the text. A minor issue, but one that seemed to polarise attitudes.

**This was totally intentional. We wanted Mike to have a very developed and clear personality and we wanted the player to feel that he was reading Mike's thoughts, but not impersonating the main character. I was never very fond of first-person approach in adventure games, I don't like the classical virtual narrator coming out of nowhere just to tell you what is happening. If there is a second part ever, the approach will be the same.**

Its testament to the team that even under such pressure the original vision and ethos for the game was maintained, with minor changes, including the late addition of a font selection mechanism engineered into the final version.

**I think that if you release a game for the community it is also logical to ask the community for feedback. Of course, you always should be loyal to your own vision of the things, but if there are improvements that are going to make the game better we always go for them. In this regard, [...] the adventure has improved [... thanks to the ] members of the community.**

As well as harvesting feedback from players, Alberto and Daniel became students of peer games and studied *Cozumel*, *La Aventura Original*, *Jabato*, and Magnetic Scrolls' *The Guild of Thieves* ("an incredibly ambitious program") for their advanced programming techniques and implementations of different types of parser.

The resultant game is stunningly impressive and quite an accomplishment, making comprehensive use of Gilsoft's special edition of *PAWS* for the Amstrad CP/M. Making the task somewhat easier, the team could cross develop to the Amstrad using modern tools and IDEs.

**[It] was actually easy. *PAWS* for the Amstrad CPC is just a compiler that runs in CP/M. You need to configure your emulator to be an**

## IN SPACE NO ONE CAN READ YOUR REVIEW

After booting into a font selection screen [introduced to placate the Amstrad retro community] the story begins with a series of neat cutscene images that set the backdrop for Mike's predicament and his journey to the Regus. Once on the spaceship, he discovers an infected crewmate had brought aboard a deadly virus sending the base into chaos. That chaos has attracted the attention of several opportune aliens, and Mike spends the adventure scouring the station attempting to restore power, and wading through the horrors of dead crew members to complete his mission.

Throughout there are nods to retro gaming [mainly the Amstrad] and loads of pop and film culture references, including *Monkey Island,* The Creature from the Black Lagoon, Star Wars, *SpaceWar*, and predictably, Aliens. Every location has a graphic, all beautifully drawn, detailed and superbly coloured. At times you'd be mistaken for playing a Level 9 or Magnetic Scrolls ST title, the graphics are that good. Another subtle touch is the change in text colour to match the overall tone and hue of the displayed image. The text is lush, very descriptive, and the *PAWS*-powered parser has been made as forgiving as possible. It is friendly and intuitive, and recognises a wide range of verbs, nouns (even US-English spellings) and sentence structures.

There's no wonder development took so long. *Doomsday Lost Echoes* is a hugely ambitious and thoroughly professional game. It's gripping to play, and gives you an idea of what the 8-bit adventure market in Europe could have achieved with access to disk drive storage as a standard in homes.

**Amstrad with two floppy drives, being the drive B a high density one with *PAWS* copied on it. CP/M is loaded from the drive A, then you switch to drive B and compile by copying the game code there and calling the compiler with the proper parameters. Of course, you want to speed things up because compiling can be very slow, so it is always good to increase the execution speed in the emulator as much as you can. This allows to compile and test the game in a matter of seconds or minutes.**

**The code was written using SciTE text editor, in Windows, and it is completely full of comments and annotations. Actually, it is almost 400KB. Luckily, the compiler ignores all this and just keeps the real commands. Being able to comment the program as much as I wanted was a blessing.**

The CP/M version of *PAWS* builds games from text database files and didn't have any picture capability at all. The *CP/M Art Patch*, co-developed by Tim Gilberts and Graeme Yeandle in 1990 allowed the screen to be split and for pictures to be displayed in the upper section.

**[The *PAWS* [...] native graphics patch allow[ed us] to use pixel art that is read from the floppy in real time, saving precious memory, and, since it is a standard CP/M program, you can fill the second RAM bank as you wish. This means that your code can be as big as 61KB. Including graphics, our adventure is almost 700KB, quite a monster for the CPC.**

It was inspired by another Amstrad game using the same technology, called *NHeredia*, and techniques developed by Miguel Sky of ESP Soft. Using an additional piece of code, and amendments to the location database, pictures could then be read from files on the required attached disk drive.

**The basic idea is simple and quite clever: you keep the pixel art in the floppy and an embedded database in the code that associates a**


**[Above]** Each location graphic has been meticulously drawn with oodles of detail. There's also a subtle change of font colour in each location to match the overall image pallette, adding a small, but visual touch of quality.

**location with a particular graphic. When the player moves, you scan the database and the new graphic is loaded directly into the video memory.**

**It integrates with the parser really well. I am not aware of commercial games using it back in the days, though, maybe because nobody wanted to develop for disk machines only. On the other hand, although developers could have added additional content as we did, that would have not been feasible from the commercial point of view, since you would be cutting your sales by more than half by not developing for 64KB machines. On top of that, our game uses a non-standard 3.5" floppy disk and almost nobody had one of those, something that would have cut the sales even further. In summary, it would have been possible, but a suicide.**

Using the patch was relatively straight-forward, but it added an overhead and further complications to creating and compiling games. It didn't deter Albert and Daniel who started creating *DDLE's* incredible 60+ images using PC-based tools.

**Dani had total freedom creating the material. I only provided him with the descriptions of the locations and the info regarding resolution and colour palette. He took care of the rest. All the graphics were made in Photoshop, and as far as I know the process started by drawing them in black and white. Then the basic colours were defined and finally the patterns and dithering added by hand. The colours are assigned by the CPC in real time, so we had to play with them in some of the locations.**

The ability to use bitmapped graphics for every location has its obvious benefit in quality. The images used in *DDLE* are superbly drawn, have a lovely use of the CPC pallette and are very, very detailed. So detailed in fact that they have been used to add to the playing experience providing visual clues to objects and puzzle elements.

**We think that the graphics add a lot to the adventure and close observation is actually necessary to solve some of the puzzles. They also tell a story on their own. We had very limited RAM available so we wanted to use all the resources at hand to create the proper atmosphere and enrich the whole experience as much as possible.**

At various junctures within the story, there are a range of cutscenes that play out as a series of individual images and page turning text. It's another element that Alberto believes doesn't distract from the purity of a text based game.

**I have always preferred adventures with graphics. I think that they can really contribute a lot to the whole experience and I believe that our game is no exception. It is a personal preference, though, many people choose to play text-only adventures and that is completely fine as well.**

It's a smart use of graphics, and the care and attention gone into the *DDLE* visuals means it does stack up against many 16-bit titles. It gives a glimpse at what a disk-enabled version of *PAWS* could have been capable of. Unfortunately, disk drives wouldn't be

commonplace until the arrival of the Atari ST and Amiga in much of Britain, and we are left wondering what UK writers and developers could have achieved with such a system. It is a shame the market never saw a general release of the equivalent engineered for Delta 4, the *System Without a Name* [*SWAN*].

**The closest thing that exists is the *DAAD* for Amiga, Atari and PC. Some fantastic games were written with it from Aventuras AD I was mentioning before.**

The *Diseñador de Aventuras AD* or *DAAD* [an acronym of AD Adventure Designer] for short, was an advanced version of PAWS developed by Tim Gilberts specifically for Aventuras AD. It was a tool that was only available commercially in Spain, but at a high cost.

It didn't handle 128K games as well as *PAWS*, so the resultant *DDLE* game code ruled out its use. It was also clear early on in development that attempting to create the game for the 64K Amstrad was out of the question.

**[...] It was clear that it would not fit. Just for you to know, when the game is running only 300 bytes of RAM are still free.**

Despite being limited to the elder tool [*PAWS*], it didn't hinder development in any way.

**It would have been great if it had allowed us to use more complex code, for example loops and proper conditionals, [...] but it is what it is. Maybe I should have been cleverer when using it!**

As for Alberto's recommendations to developing games with PAWS?

**Read the user manual a couple of times first. Then, when you have the general idea in mind, try to read all the old literature about the parser.**

**For example, the questions that people had back in the days when they were using it and the answers given to them. Everything is available to download and there is a treasure of info in these old documents. Besides that, I can only recommend to have your adventure completely written and sketched before start typing a single command.**

Did *DDLE* adhere to any design rules?

**Only a few. Keep the puzzles logical and fair, add rewards for the dedicated player, don't make your game artificially longer than necessary and avoid at all costs cheap deaths and frustrating situations. I don't really understand adventures where you can suddenly die without any kind of advice, or [those that are] filled with impossible puzzles. I think that we should try to leave all that behind.**

Playing *DDLE* it's easy to forget that it has been created by a team who don't have English as a first language. The text is written to a consistent level throughout, with barely an error in grammar or spelling which must have proven difficult.

**[...] I have been living in UK for more than eight years now and I am constantly writing and speaking in English. Still, English is not my mother tongue and, although the game was understandable, I felt that the language was very stiff and not natural. Therefore, three people with much more knowledge than me went through the texts.**

What are your favourite elements to the game?

**One of the things I like is the fact that the parser is not rigid compared with most 8-bit text adventures. We wanted to create a game that was playable by everybody. Therefore, there was a lot of thinking about how to parse the commands. If you lower the requirements too much people could be able to solve puzzles almost by chance, but if you are too picky frustration arises easily. I like the balance we managed to achieve. I also like the graphics a lot and the amount of lore we managed to squeeze in the adventure.**

Would you go back and change anything?

**Yes. If I had to code it again I would keep the intro as a separate program. This way, it could have been longer and we could have saved precious RAM. With more RAM we would have had space to implement a better inventory, one with actual pictures of the objects, and maybe extend some other elements, like the cut-scenes, or even add some sounds or little animations, like blinking lights.**

Then there's the Easter Eggs. These seem to have been very important for the team, and there's a hint that clues exist in the game that break into the real world and cross over from the digital into the physical plain.

**"Centuries in the future humanity will realise that [the Amstrad] is the computer of choice to install in a space station stranded in the middle of nowhere"**

**The main Easter Egg has not been found, but this is not a surprise, I would not be able to find it myself if I didn´t know about it. I can give you a hint, though. The video where Mike is shooting things is actually a puzzle, and solving it is essential to find the Easter Egg. We promised a physical reward for whoever finds it and describes how he or she did the discovery. It is still sitting in my living room.**

But, as mentioned before, the actual Easter Egg is only one of a few external references that appear in the game. It's obvious that the developers love the Amstrad, and the CPC makes plenty of appearances in the game, at one point being a computer still running on the abandoned space station.

**Centuries in the future humanity will realise that [the Amstrad] is the computer of choice to install in a space station stranded in the middle of nowhere, particularly if it is orbiting a gas giant. They will be all Schneider, though, because they are shielded and have centronics ports. Edge connectors are not so reliable in extreme environments.**

The game was finally finished in November 2016 and made available via the internet for free. Despite the complicated twin-disk emulation required, the website has a comprehensive and easy to follow setup guide, and also hosts an introduction to text adventure games for those unfamiliar with the genre. It seems to have helped the game gain traction and success so far.

**We actually had more than one thousand downloads just in our own website, although there are quite a few other mirrors here and there. The physical edition is actually selling very well too, as far as I know. Moreover, many people have written e-mails telling us that the adventure is very enjoyable, and there have been many articles about it in lots of webs and magazines. It is very encouraging and we are extremely grateful to all the players and supporters.**

Evidence of the game's quality and growing reputation was the acquisition of the publishing rights to a physical version by retro game publisher, Poly.play, headed by Sebastian Bach.


## PHYSICAL PERFECTION

Launching in 2002, Chronosoft were one of the first specialist publishers to revive distribution of games for retro consoles and computers. Since then, the popularity of physical media has grown, and many other producers have joined the retro scene offering high levels of quality and ever more sophisticated production techniques - some offering cassette, disk or even cartridge based games.

One of those, Poly.play, a German company, has secured the rights to retail Doomsday Lost Echoes. They have made two special Collector's Editions of *Doomsday* available for purchase.

One configuration can be bought with a 3" and 3.5" floppy disk and the other with dual 3.5" floppies, depends on your preferred formats.

Both have sumptuously designed artwork by Daniel Castaño and feature a wide range of extras, including a packed SD card, complete with digital wallpapers, icons, artwork, development notes and the emulator images for those who might just want to own the cardboard.

There's a well written and helpful 24-page manual that has a few hints and tips for the game, as well as an A3 poster and 4 different stickers.

Buy now from:

www.polyplay.xyz

**It is awesome that publishers like Poly.play exist, otherwise the physical edition would had never been a reality - and the same is true for many other games. We were directly approached by Sebastian, that offered us his services and took care of everything, including sourcing all the floppies and copying the game to them. We only provided all the material in digital format and he did the rest, it was a truly great experience.**

It's a completely different experience having a physical product, and loading a game via cassette, or in this case a disk.

**Yes, at least in my case having a physical release brings back many good childhood memories. The same is true when I play the game in my Amstrad, particularly if it is connected to a CRT monitor. The graphics were made with these screens in mind, same as in the old times, and they actually look much better displayed on them. The drawback playing in a real Amstrad is the speed. You can speed up the things in an emulator considerably. In any case, I think that the true experience beats emulation by far, particularly if you had an Amstrad back in the days.**

Daniel designed all of the artwork and additional material required for the inside and outside of the box [see Physical Perfection box-out] as well as work on a user manual and other 'feelies' included. It has been exceptionally ambitious for a homebrew project.

**We wanted to do something simple, but then it started to grow more and more... and at the end we were a bunch of people working very hard towards the same goal. Actually, I consider this adventure to be quite a community effort. It would have been impossible to release it without all the people helping us.**

Will we ever see Mike make a return, perhaps with one of the other characters in the Doomsday after his escape from the Regus?

**We are working, just Dani and me at the moment, on an action RPG. If we manage to finish it one day it will be a PC release. It is something much more ambitious and enormous compared with *Doomsday*, so we are not even sure about the feasibility of the project. Well, let's be honest, we suspect that we won't be able to finish it at all! We have worked quite a lot, but what we did is just the tip of the iceberg. In this new game I am, again, doing the coding and Dani is taking care of the graphics.**

**I must say, however, that we would love to make *Doomsday II* in the future if we had time. We even now how it would continue, and who would be the main character. I can tell you that Mike would not appear until the end of the game, that you would visit The Pit and the surface of a planet...**

# DESERT ISLAND DUNGEONS

After being stranded on space station Regus, and attempting to escape from Kepler 452b, *Doomsday Lost Echoes* coder **Alberto Riera** finds himself stuck on the text adventure desert island.

That is a difficult question, but I would definitely choose some of the games from Aventuras AD, and, as much as I love my Amstrad, I would go for the Amiga versions. The graphics were better, the parser more tolerant and the texts far more detailed.

I think I would choose ***La Aventura Original***, ***Jabato***, ***Cozumel***, ***Los Templos Sagrados*** and ***Chichen Itzá***.

The first two are awesome adventures and the last three part of the same trilogy. I think that if I did not know the answers to all the puzzles, it would take me more than a year to finish them.

# VERONIKA MEGLER

*The Hobbit*, created by **Veronika Megler** and Philip Mitchell captured the imagination of adventurers, entranced by its intelligent, autonomous characters, bold graphics and sophisticated parser. Almost four decades later, **Veronika** and **Alfred Milgrom** sit down and start singing about gold.

Alfred Milgrom founded Melbourne House as a general book publishing company in Britain in early 1978. Previously he'd been involved with an Australian company called Outback Press and realised the licencing difficulties in obtaining rights for US titles to sell across the commonwealth when not based in London.

**[Alfred] Prior to book publishing [I] was at the University of Melbourne, where I completed a Bachelor of Science (Hons), and was working on my Ph.D. I had a strong background in science and had developed a strong interest in computers and programming. In February 1980 I read a newspaper article. in the Australian Financial Review, about the start of game publishing in the US, with titles such as *Chess* and adventure games by Adventure International, for**

**example. I was excited because this field combined two strong interests of mine - computers and publishing.**

He spent much of 1980 visiting the US, keeping one eye on the fledgling game publishing market when the ZX81 was launched by Sinclair Research. It was the machine he'd been waiting for, with an affordable retail price of £100, Alfred knew that it would be popular and positioned Melbourne House to take advantage of it.

**[Alfred] Book publishing was what I knew, so in September 1980, I decided to write and publish the book '30 programs for the ZX80'. This book gave the owners of the ZX80 an idea of what could be done with this computer, including a range of interesting techniques. Naomi Besen, who was my wife at that time, contacted Clive Sinclair to obtain an endorsement for this book. Clive Sinclair was very busy and I think that he did not take the time to look at the book. However, after many repeated calls from Naomi he told his secretary to say that the book was excellent.**

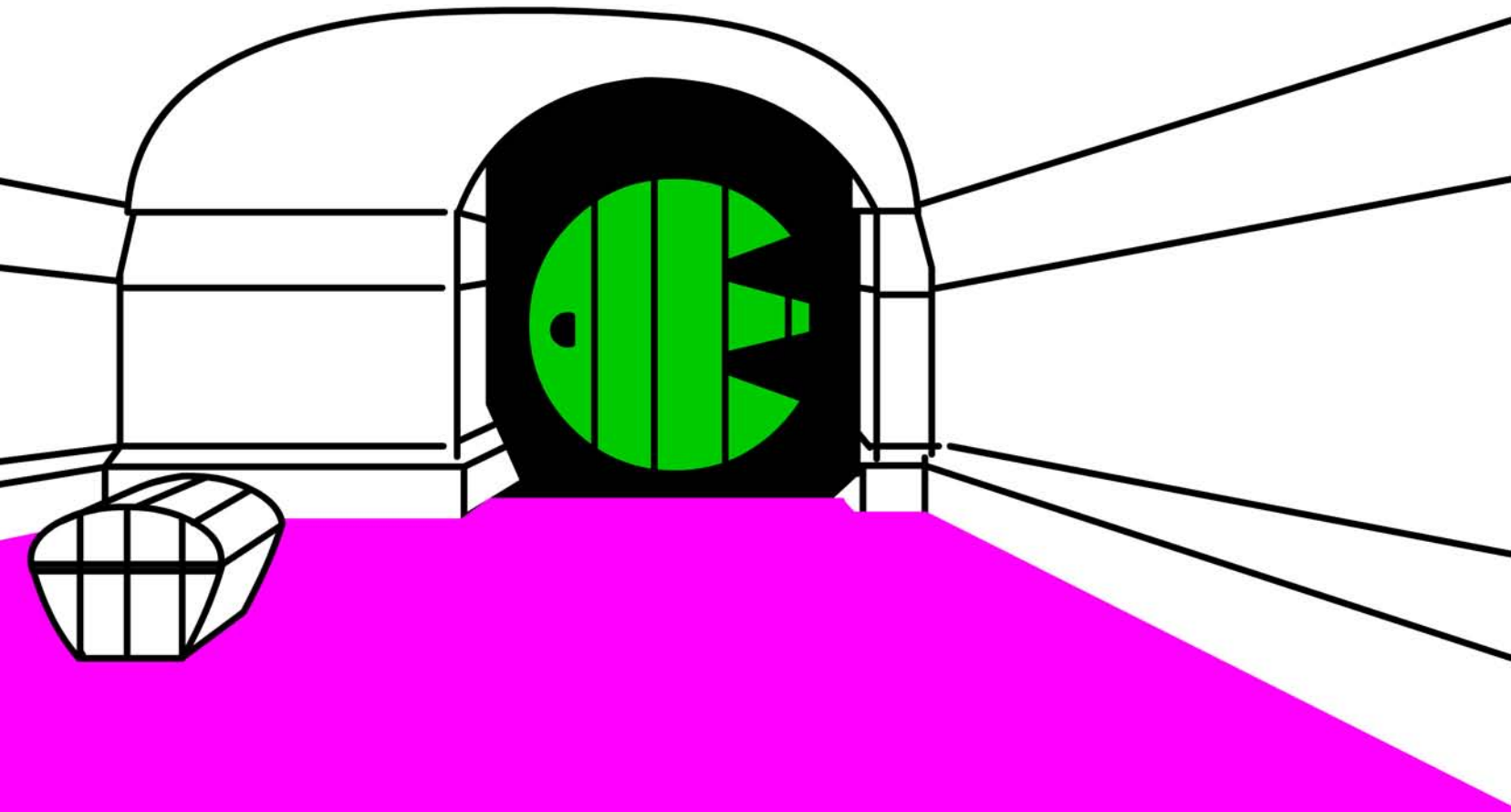
More books followed and sales soared. For a while Melbourne House experimented by importing Apple II games from the US, but after little interest in a country with so few of the expensive machines, they ceased the operation. Despite the poor sales, Alfred predicted that a software market, buoyed by Sir Clive's cheap machines would soon become viable.

**[Alfred] I realised that there was very little difference between developing material and putting that content onto paper or putting that content on a cassette tape. I very quickly started searching for someone to help develop content, and I employed a student to work during the university vacation.**

Beam Software (BE from Naomi Besen and AM from Alfred Milgrom) was founded in December 1980 with its first employee, William Tang. A version of *Space Invaders* for the ZX80 was quickly developed, but it was too late – Sinclair announced the ZX81 and that made the product obsolete overnight. It was an important lesson for Milgrom, an early, stark warning of the short development lifecycles required, and the precarious nature of game sales that could suddenly fall off a cliff edge.

For Beam's next game, Milgrom wanted to develop a text adventure. After witnessing Scott Adams' company releasing successful derivatives of *Adventure*, and early adaptations from Artic and Abersoft reaching the British market he wanted to create something bigger, better and more inventive than anything currently available. There had to be some future and forward thinking, and any code need the adaptability to take advantage of any new systems that would arise during development. But first, they needed a subject.

**[Alfred] It was my intention to develop adventure games, especially to go beyond the simple two-word user interface other people had used in such games, and I wanted to have a rich and emotive environment and story. The obvious starting point for fantasy**



**seemed to me to be the Tolkien books, and especially The Hobbit.**

With Tang employed writing other books and games, Alfred needed to expand his team to undertake the new project. It had been a favourable experience employing a student, so he adopted the same approach and posted an advert seeking programmers on a notice board back at Melbourne University.

A young female Computer Science student called Veronika Megler responded to the advert, looking for a more flexible part-time job than her current role as a computer operator.

**[Veronika] I think it just said it was a programming job – the ad was just a few words long and a phone number, I remember. I didn't have to code to get the job. I did the initial design within the first few hours and reviewed it with him, as I recall.**

Megler had the right aptitude, understood the challenge and showed talent and potential. She was hired on the spot. Alfred gave her a single specific instruction: "Write the best adventure game ever. Period."

The benchmark adventure at the time, was Crowther and Woods' *Adventure*, but to Megler, it seemed sterile and repetitive. In her Case History Of Writing *The Hobbit* she commented "once you'd figured out the map and solved the puzzles, it was instantly boring. It played the same way every time."

The non-playable characters [NPCs] came in for specific criticism. Though the world locations would remain static on any subsequent plays of the game, there was an expectation that the creatures and beings that inhabited the caves wouldn't – they'd move around, respond in different ways to the presence of the player and have some ability to interact with each other and their surroundings. Secondly, the list of typed actions that the original game recognised was limited. The frustration of hunting for the correct verb and noun to progress in the game vexed Megler. "You had to figure out exactly the incantation the game expected; if the game expected "kill troll", then any other command –"attack the troll", for example–would get an error message You could spend a long time trying to figure out what command the game developer intended you to issue; as a result, most adventure games tended to have the same actions, paired with the same vocabulary".

So there were two distinct areas to improve, and Veronika recognised that her skillset was better suited to addressing the game's logic. What she needed was a colleague to work on the game's parser, and she had the ideal candidate in mind, a fellow Computer Sciences student who had partnered with her on group projects, Philip Mitchell.

**[Veronika] Phil was a much more algorithmic, semantic and correct programmer than I was (or am) – more of a pure software developer. Perhaps more of a convergent thinker. [...] I'm a divergent thinker – very creative, excellent at integrating ideas from many places and**

**disciplines in unusual ways to solve "white space" problems, but not nearly so rigorous or precise.**

She introduced him to Alfred, and Philip was duly hired to work alongside her. For home computer game development in 1982, the concept of putting together a "team" with a different skillset was unheard of, and revolutionary.

**[Veronika] I've never considered that, but yes, that's true. We really treated it more as a software development project than as a hobby, which was very unusual for the time.**

Alfred's choice of *The Hobbit* for the game was universally approved. The team knew they required a story, but neither member could come up with something vaguely compelling. They toyed with the idea of bringing in a writer, but that proved to be a cost that couldn't be met. The next best thing was to settle on working from an adventure that was already written.

**[Veronika] [Alfred] suggested *The Hobbit*. It seemed like a good idea at the time. We didn't consider the licensing beforehand. Fred took on the licensing discussion, and kept Phil and me out of it – thankfully.**

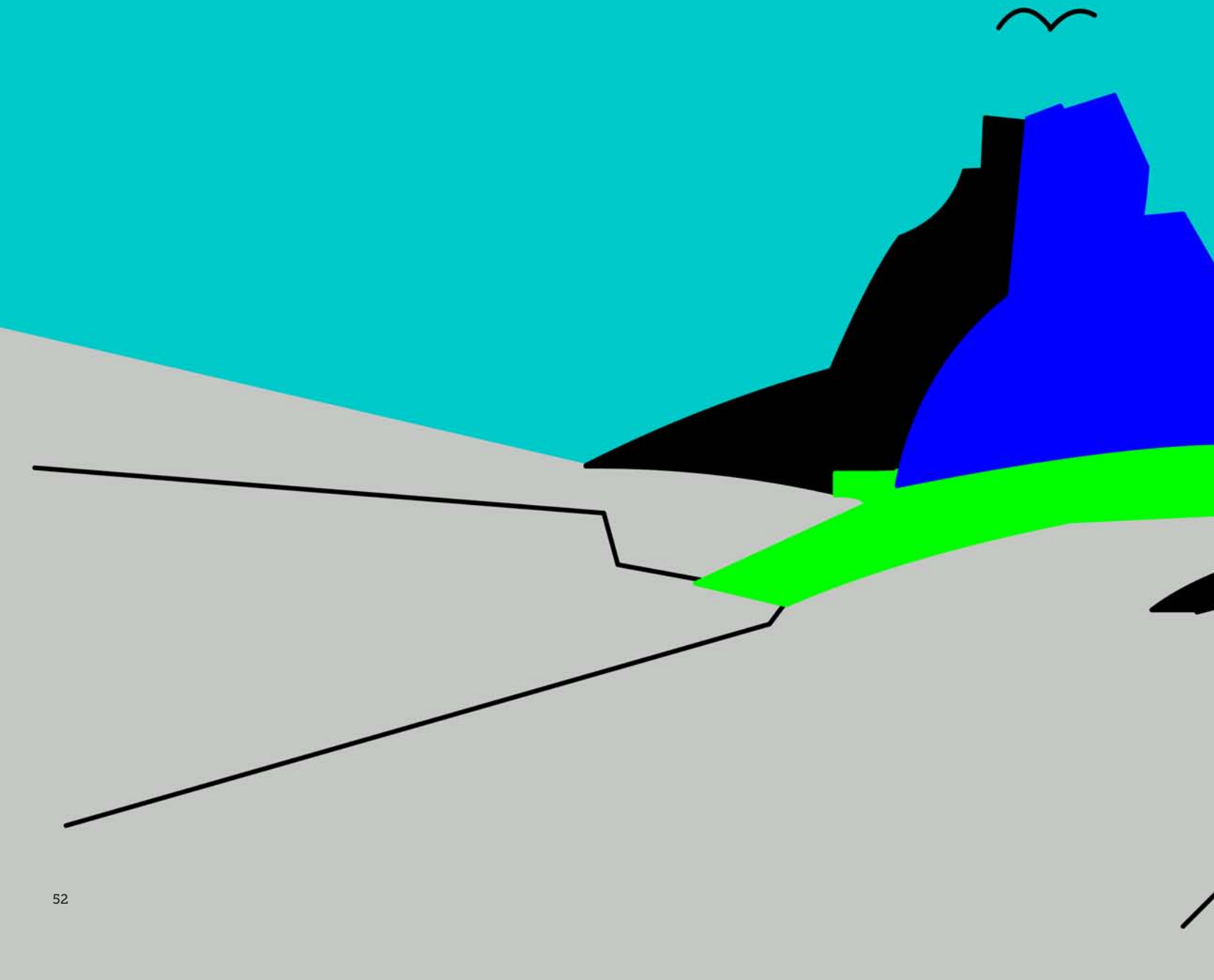
It seemed the right thing and obvious to approach the publishers of the Tolkien books for the licence, but they didn't hold the rights. By not securing a deal it left a potential IP banana skin for the future, so Megler and Mitchell embarked on the development of a generic fantasy game, something that could easily be adapted to a range of themes and narratives - just in case.

**[Veronika] I designed it with the specific intent to be a reusable games engine. My idea was that you'd be able to replace the "databases", as I thought of them – the map, the list of NPCs and their actions – and have a completely different game. I thought that way you'd be able to turn out a series of games quite quickly using the same engines.**

**What I didn't take into account was that I'd start adding more complex interactions between NPCs and players than the simple, stilted fights from *Adventure*, and more complex puzzles. Then all the special cases required so much additional work. In that I was still thinking a little more generically and simply.**

They split the project down the middle, Veronika developing the game's interpretor, logic, and database structure and Philip on the interface and natural language parser. Before she could get started though, there was the source material to research.

**[Veronika] I'd read the entire Tolkien series several times long before**



**I started writing the game, and was a big fan of it. The Hobbit seemed the only one out of the series that I thought would be possible to convert, as the other books have far too much richness and complexity.[...] I saw the game as an abstraction of the book, in the same way that a movie simplifies and hints at a book. It was an interesting challenge to decide what to keep and what to leave out, what I could do within the technical limitations, and how to still reflect the book.**

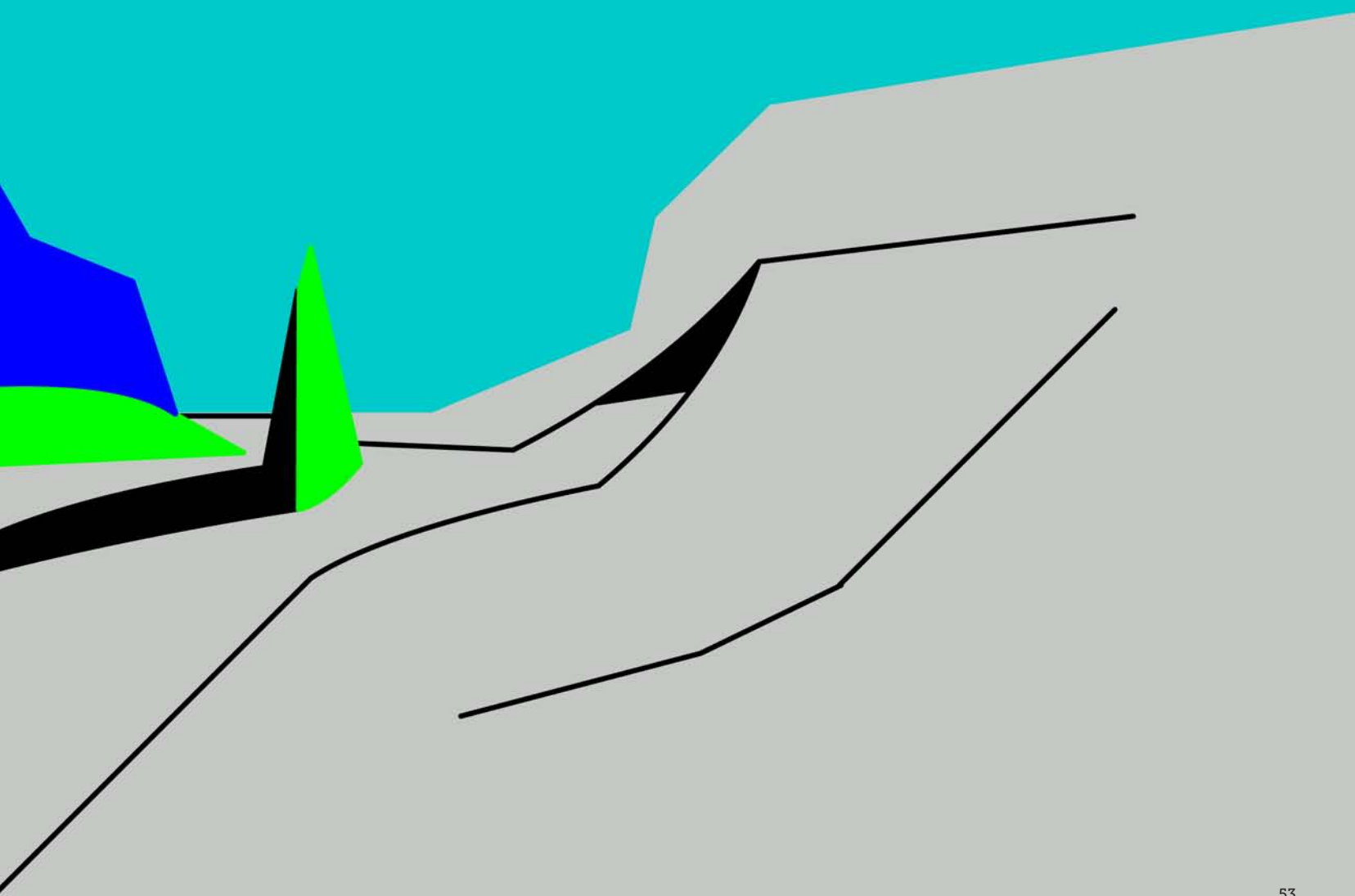
**I tried hard to capture the essence of the key places, characters and events. I must have done a good job of it; many people have complained about being annoyed by some of the characters' behaviour, but I've never heard any complaints that the game misrepresented the book.**

While the epic story was being manipulated into more manageable pieces, Mitchell made a start on the parser. There's no hiding this was Melbourne House's focus of ambition for the game from the outset. Milgrom's aspiration weighed heavily on the construction of a more elaborate parser. From going "beyond the simple two-word user interface" he told Computer Answers magazine "we were looking for a much more sophisticated language analysis and dictionary including as many words as possible".

Stuart Ritchie [another student undertaking a dual degree in English Linguistics and Computer Science] was drafted in to help, it seemed as a consultant to provide academic language expertise. His contribution is unclear. He certainly didn't provide any programming input, and according to discussions between Megler and Mitchell very little of what he provided made it into the final game. Nevertheless he remained a credit within the game's literature as part of the development team, and almost certainly influenced the semantics and thinking behind *The Hobbit's* brand new parser, named INGLISH.

*The Hobbit* manual described the new technology as thus: "The rules of Inglish are simple. The main thing to keep in mind is that each instruction must be in the form of verb-then-noun, where the noun or pronoun can also be implied." In practice it meant that no matter what the user entered, the parser would split the verb, noun and pronoun and hand it to the interpreter to undertake the appropriate action. "TAKE THE SHARP SWORD AND EXCITEDLY HACK AT THE EVIL TROLL" would be broken down and converted to a simple action "KILL TROLL WITH SWORD". Megler explained in her case history that compound sentences would also be handled and parsed as a series of actions. "TAKE THE HAMMER AND HIT GANDALF WITH IT" would become two individual actions, "GET HAMMER" followed by "HIT GANDALF WITH HAMMER".

Learning from the ill-timed release of *Space Invaders,* Milgrom



assessed new computers coming onto the market as potential target machines for *The Hobbit*. The original "fantasy story" adventure program, as well as being designed to be reusable, was engineered to be machine and implementation language independent. Whatever computer was around at launch time, the game could be easily compiled for it. It was a game "engine" 20 years before the phrase was coined, and like Scott Adams, Ken Reed and the Austin Brothers, it seemed that adventure engineers were ahead of their time with such thinking.

**[Veronika] I did no research and didn't look at the code – such is the arrogance of youth! *Classic Adventure* was the only adventure I knew of or had played. No other adventure games came my way, and of course the Internet wasn't around then to tell me of any others. I put together the overall design for a game that would remove the non-language limitations within a couple of hours on my first day on the job.**

*The Hobbit* interpreter contained three database abstractions; locations, objects and characters. The first was straight-forward, a collection of game locations, information on which directions the player can take from each, and to which subsequent location the game then moves to. "Overrides" were added – rules that could be applied that had to be met before the player could move. In the best tradition of adventures, a randomly-generated exit rule was implemented, and used to perfection in *The Hobbit* with the creation of the Misty Mountains' two connected multiple location mazes. The objects database was similar. Simple objects could be made more complex by the addition of characteristics; weight, size, opacity and whether they could act as a light source or as a container and hold other objects.

The magic of *The Hobbit* lies in Megler's vision of what the game's characters could become. It's the ground-breaking, and most significant development moment in *The Hobbit*, taking the immobile and passive monsters of *Adventure* and handing them the ability to execute seemingly intelligent and independent behaviours. Megler gave them life.

**[Veronika] The characters in *Adventure* bored me. They were so static and limited. I came up with an implementation that made sense to me. I quickly discovered that combining several simple innovations can cause the overall system to exhibit quite complex behaviour, and I loved that.**

Her implementation gave each character a set of actions that they "may" perform, a sequence in which they were generally performed and a frequency of repetition. The actions were in the main, drawn from the commands that the player could do – movement, object manipulation and the ability to fight with other characters. Again, "overrides" were added, so characters could be tailored to have individual characteristics – and given a sense of personality.

**[Veronika] It involved quite a bit of trial and error. Initially they were all a little too high on aggression, and it was too common to walk into a location and discover most of the NPCs already dead and then the rest to attack the player. But I toned them down a bit, and liked the result.**

Trolls and Goblins wandered around wanting to kill everything, whereas accomplices of Bilbo were more troublesome. Thorin Oakenshield for example, tended to follow the player and without interaction became disinterested in the quest. Veronika pondered on the bored Dwarf's thoughts, and taking her inspiration from Tolkien's book implemented an action that has become a legendary memory of the game. With nothing better to do, Thorin, bless him, would sit down and start singing about gold.

**[Veronika] Yes, I did write the now classic phrase. [...] I hereby apologise for how frequently he said that. Short character action list, you see.**

In the book, Bilbo required the assistance of his accomplices at many junctures, and to allow the player to tap into NPCs actions Mitchell modified Inglish to include a SAY TO command. It became a vital puzzle element, and NPCs could be asked to perform tasks or

undertake commands on their player's behalf. It wasn't guaranteed though, and NPCs often refused to do what was suggested. Melbourne House dubbed this ANIMTALK, and the character interactions ANIMACTION. The final stroke of genius came as Megler and Mitchell realised that everything in the game waited for the player to type in a command. What they needed was a way for the world to operate on its own, and for the characters to continue to move and make their decisions even if the player had decided not to do anything.

**[Veronika] It seemed an obvious extension of the NPC concept, to me. Once you had the other characters running around the game and playing it themselves, even when you weren't "in the room", so to speak – it just seemed wrong to have them all wait while the "player" went off to brew another cup of tea. But as with so many innovations, it started out as a joke. It was a very small code addition for Phil to make. In retrospect it was another step that made the game seem even more self-generative, rather than something controlled by the player.**

But despite these variables, it still led to some predictable results during testing. An extra dimension of flexibility was added. Instead of a linear iteration through the pre-determined action lists, Megler allowed characters to "branch to a different part of the sequence and continue from there, or even jump to a random location in the sequence". It became a game changer, multiplying a small number of set actions into a behaviour list with thousands of variants.

**[Veronika] The division between inanimate object and NPC was [also] left intentionally a little blurry, giving extra flexibility. For example, the object overrides could also be used to modify character behaviour. I actually coded an override where, if the player typed "turn on the angry dwarf", he turned into a "randy dwarf" and followed the player around propositioning him. If he was later turned off, he'd return to being the angry dwarf and start trying to kill any live character. Fred and Phil made me take that routine out.**

It was the result that Veronika craved - no two games from that moment would ever be alike. But it came at a cost. The huge set of variables meant that it was almost impossible to test, as she explained in her case history, "small changes in starting conditions, [for example] initial game settings all generated by the random number generator, would lead to large differences in how the game proceeded. The earlier capability of balancing NPC behaviour was now lost. You couldn't predict where the player would encounter another character, let alone determine what actions they would take and in which order.

In some cases it left the adventure in a state where it couldn't be completed. This seemingly anarchic ruleset is an endearing of *The Hobbit* and the philosophy of its developer. Whereas the "randy dwarf" was tempered, Veronika's attitude to this chaos was to embrace it. She accepted that the game allowed people to do different things, some things that had not occurred to her, and in doing so handed the game its soul and breathed life into the characters.

**[Veronika] Absolutely. I was really aiming for something like life, where the outcome is the result of many independent occurrences and decisions by many people, and sometimes things just don't work out. For me it was never a question – I actively wanted the unpredictability. Phil worked long and hard to get a true random number generator rather than the pseudo-random generators available, so that when I wanted randomness I could guarantee the game wouldn't play the same each time. In retrospect I'm amazed that the others were willing to accept it. I must have made some compelling arguments!**

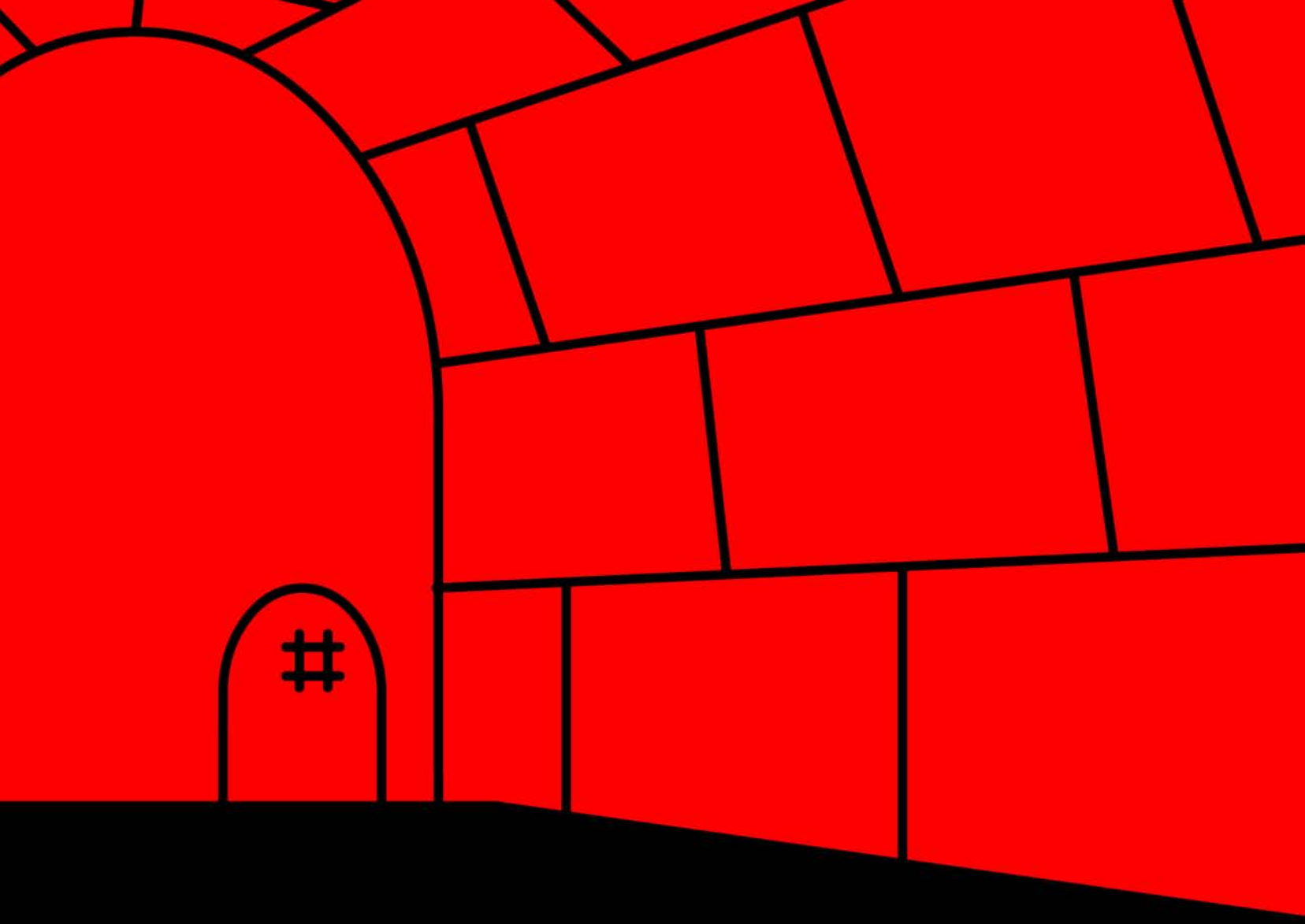
## ATTACK CHEST WITH SWORD

Version 1 of The Hobbit shipped with a raft of glorious random behaviours and bugs that were quickly fixed in a later v1.2 patched release.

Typing OP DO resulted in a set of weird results. Either evaporating the waters in the black river and fast river, or cleaving the "crack" to death. Weight had been incorrectly implemented too, enabling Bilbo to pick up a range of characters and walking around with them.

The chest appeared in many anomalies with players reporting the ability to get in it, close the lid but continue the adventure. What about tricking Thorin to get in the chest? Or attacking it with the sword: "With one swift blow you cleave his skull. The chest is dead."

Many of these unforeseen actions caused the game to crash, and a frustrating reboot of the computer would follow. "[I] discovered that the assembler had optimized away a necessary register increment, causing an infinite loop" explained Megler.



With a working copy in hand, Milgrom now pursued the book's licence holders with extra vigour. It was complete, with a primitive implementation of location graphics, despite what is widely reputed as being a later addition to the project.

**[Veronika] The graphics came in relatively early [and] were already included. It didn't impact me at all, and I don't recall Phil doing any redesign. We liked the idea of a "graphic adventure game", and this was the reasonable step in that direction. We'd integrated the two game halves [and] I believe Phil compressed the images so they didn't take too much space. I do remember making him add the feature to turn them off, because waiting for them to draw was driving me crazy and slowing down my testing. There was still a lot of testing and debugging to do; there were many individual "actions", particularly with the way the NPCs and player could interact, that could cause crashes. While the coding was doable, thorough testing of a game of that complexity was beyond the capabilities of the tools available at the time. That piece we had not thought through sufficiently.**

The Tolkien Trust, and George Allen and Unwin Publishers were impressed but negotiating the deal became a stumbling block. This was a market in its infancy and many traditional media companies didn't know what a computer game was, yet alone appreciate any potential level of sales. Because of that naivety, the Trust agreed to grant Beam a licence on the sole condition that it packaged a copy of the book with each game.

**[Alfred] They would obviously make money from the sale of the books, hopefully expand the audience for the works of Tolkien and keep the Tolkien legacy going in its original form. This was something they could understand and they very kindly accepted our offer.**

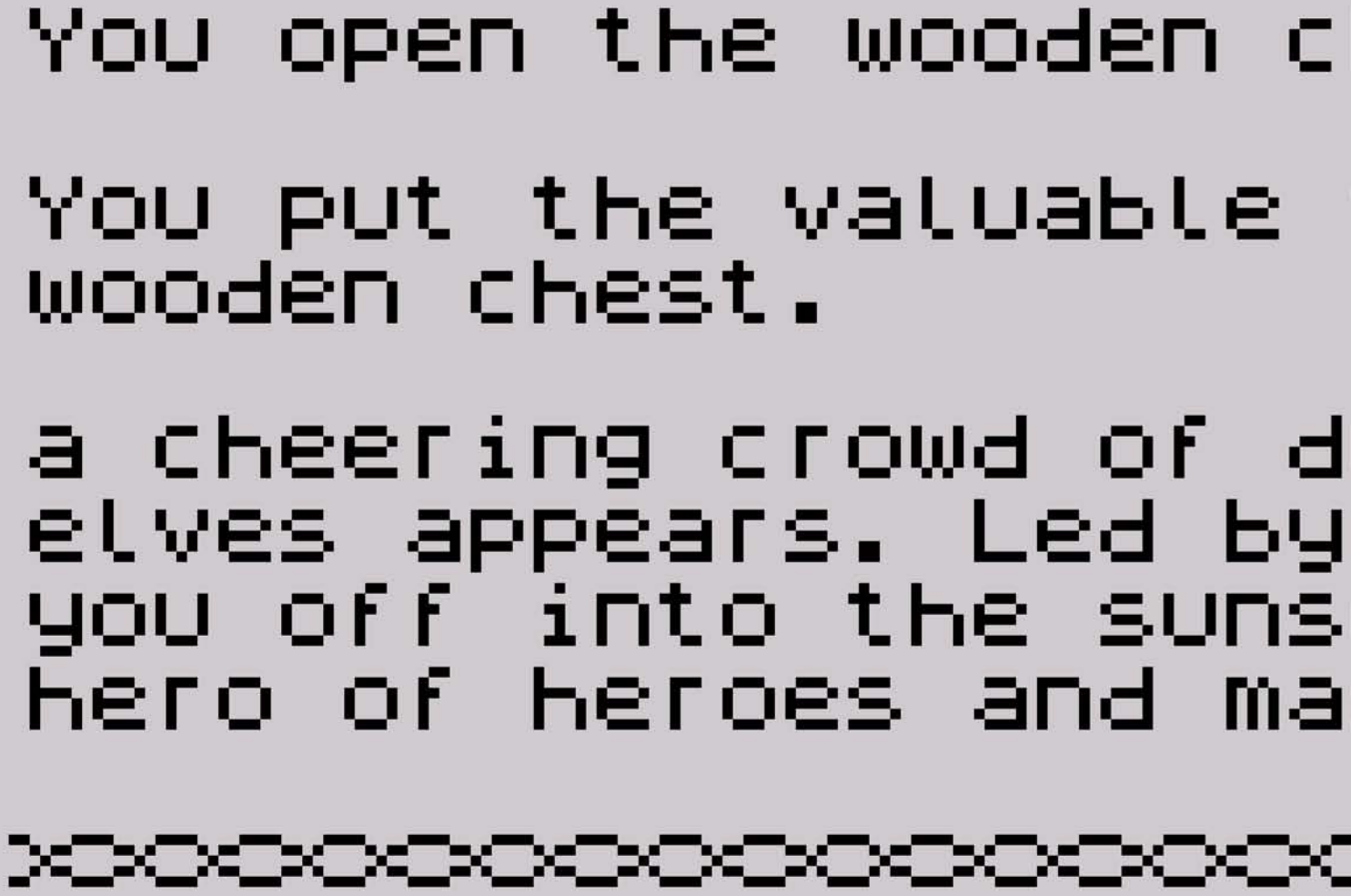
At the end of 1981, with the project virtually complete and entering the final stages of polish, Veronika considered her future and somehow, "games" didn't seem like a viable career.

**[Veronika] Games was seen as a hobby market, and not as "real" job. IBM, and other potential employers, HP and Digital Equipment made it very clear that having written a game was not regarded as any kind of relevant work experience, and did not give me any credit for it. Since they had so much more experience than I did in the business and computer world, I accepted that judgment.**

Megler took a job at IBM and lost touch with her game and the games industry completely. Having worked on the arcade game *Penetrator* as a side project, she was also feeling the detrimental effects of what became an industry staple – churn and burn-out.

**[Veronika] Oh, I was definitely tired of testing and debugging Assembler by that time. From my perspective, the interesting parts had long been completed. And the prospect of continuing to do the same thing over and over again held no real appeal for me. Had I chosen to stay at Melbourne House, there was no promotion path, just doing more of the same. Of course, in retrospect, it's had more impact than anything else I've done in my career – but I had no way of knowing that at the time.**

Mitchell was handed the sole task of finishing the game, and worked

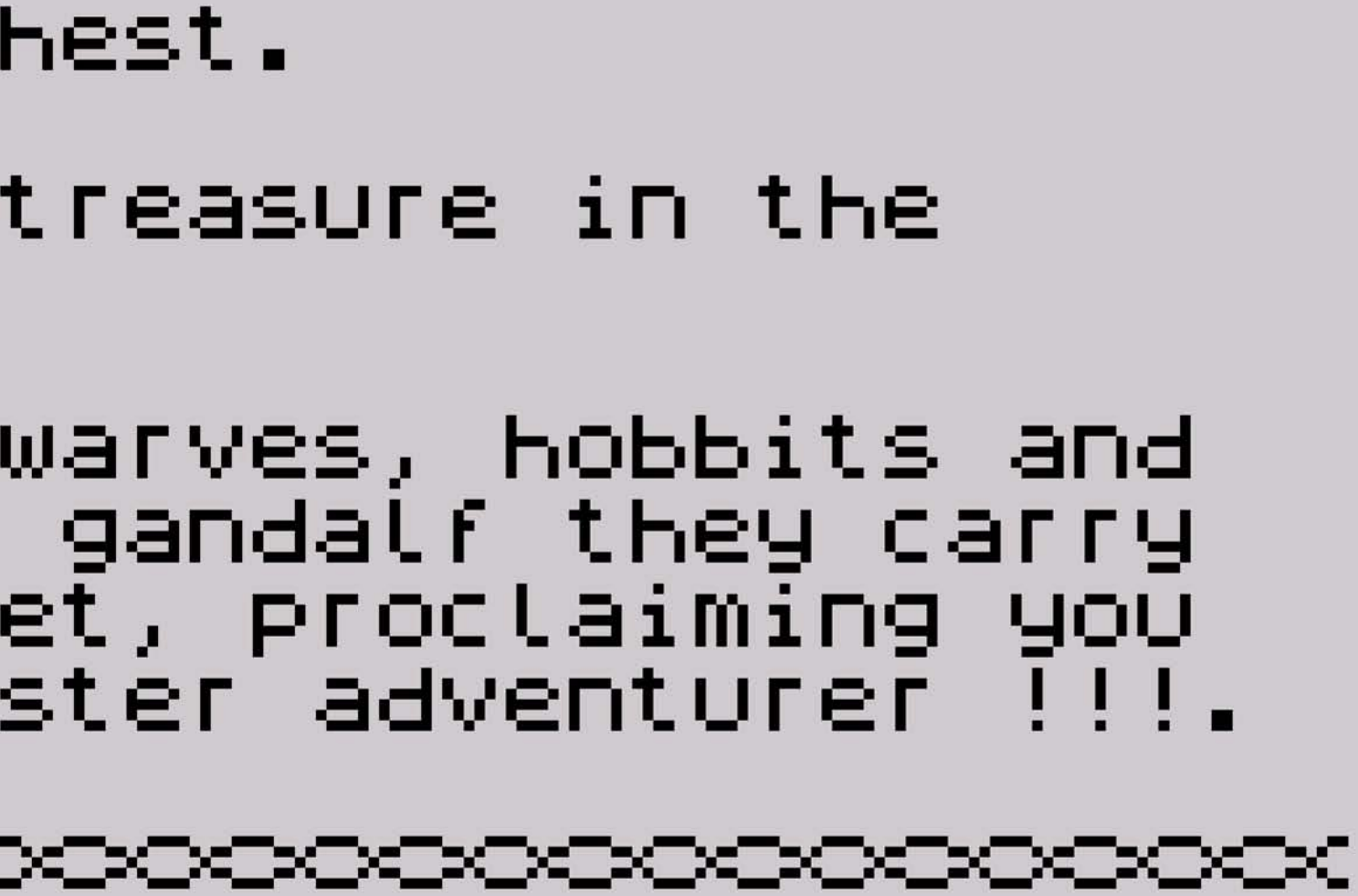



to improve the line and fill graphics engine he'd started earlier. Beam commissioned artist Kent Rees to assist, and he created around 30 locations for the final product, including perhaps the most recognisable picture in a text adventure – a comfortable tunnel-like hall. Assisted by Gregg Barnett [who also created The Way of the Exploding Fist for Melbourne House], Peter Beresford and Gerard Neil ported The Hobbit to as many microcomputers as were viable. Melbourne House eventually circumvented the copyright and licencing issues in the US and trusted the Addison-Wesley Publishing Company of Reading, Massachusetts to distribute the game as *The Hobbit: A Software Adventure* state-side. They delivered on the trust, with retail versions for the Apple II, C64 and Mac coming in sumptuous packaging, complete with the book, a detailed user guide, a reference card, masses of Tolkien artwork and a delightful map of Wilderland.

In the final analysis, sales were reputed to be anywhere between 250,000 and a million copies making it a candidate for the best-selling adventure of all-time. In Britain, there's little argument that it was the most played, and most influential game of its time changing the way that both player and writer evaluated standards for future games. Megler and Mitchell did an incredible job compressing such an epic narrative into the confines of the 48K Spectrum. Of course, huge amounts of Middle Earth's topography and swathes of the book are compressed into a few locations, and it becomes more a series of set pieces than a world to be explored and travelled. There's no doubt the game would have benefited from an added sense of scale, time (a pronounced day/night cycle would help prepare the player for the encounter with the Trolls) and space to take a breath, even if some of the locations would be superfluous and passed without incident. Then there's its respect of canon. The book was included to be the ultimate hint sheet, in addition to placating the publishers, but it's of little help in so many areas. Despite the broad artistic brush strokes taken with the timeline, the puzzles and NPCs play fast and loose with the narrative. We're missing the rest of Bilbo's companions, having to settle for a single Dwarf in the guise of Thorin, and there is the odd implementation of Gandalf. As the manual and subsequent hint books testify, Gandalf, a member of the wise and powerful council of Wizards, has been bizarrely reduced to a doddering old fool, who muddles around without purpose randomly grasping and examining objects. Elrond can read the map, but much of the book's satisfying character interaction is missing. And finally, in many hints and tips texts, perhaps the furthest move away from the book, you're encouraged to kill Gollum at the earliest opportunity.

But it's here, in Megler's dynamic and lawless implementation of the rules and their ability to spit out unforeseen events that I return to the game's aforementioned soul. You're playing *The Hobbit*, but you're not. It's freedom to break the strait-jacket of the book and play a new adventure, a new story that is filled with the same familiar locations and characters. It's this that's remembered by the players, not the graphics (that are basic, and painfully slow to render with it's dreadful spill-fill routine) nor the fixation with Inglish. No, it's remembered for being able to get into the chest, to attack Gandalf and have your skull "cleaved", and for Thorin's incessant need to sit down and sing about gold.

The preoccupation with the parser, both in development and in the post-press and promotion of the game was actually, in my opinion, to the game's detriment. There's nothing more frustrating than a clumsy parser implementation, but in reality *The Hobbit* hardly used the sophistication it was programmed to support. A quick scan of the




game's solution shows that besides the SAY TO command you rarely had to move away from a verb/noun combination to complete the game.

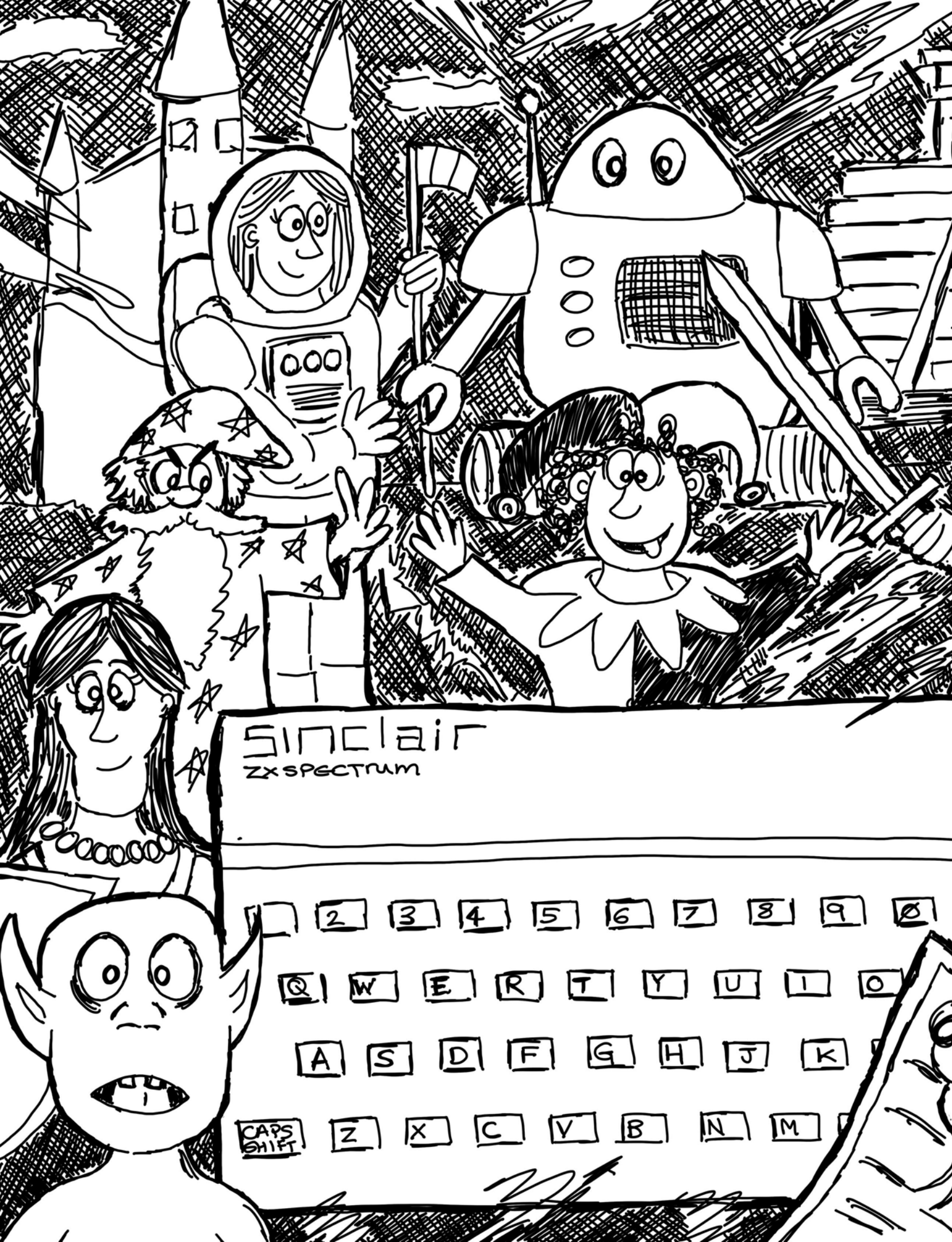
It wasn't until 1984 and Mitchell's and Melbourne House's next game, *Sherlock*, that Inglish was arguably utilised to a better degree. Based upon the exploits of Sherlock Holmes, it was a game discussed at Beam before Veronika's departure.

**[Veronika] The Sherlock series did not have the copyright challenges that The Hobbit had, and that was a major attraction for Fred. I did not believe the NPC engine I'd written in Assembler was powerful enough for the kind of interaction that *Sherlock* would need. The story of Sherlock Holmes is centred around interpersonal interactions; it seems to me a fundamentally different genre from adventures. The player interactions of *The Hobbit* were under-designed for complex interpersonal problem solving – there were too many special cases and special coding. I felt it required a rethink and redesign with those capabilities in mind, and that it would require a higher level language such as C to make it feasible.**

*Sherlock* constrained the behaviour of its NPCs, whereas Megler had envisioned a progressive game that could self-generate characters and give them greater power. We're left to wonder what could have been if she'd have stayed around. It's remarkable, and somewhat sad that for so long she was completely isolated from the game's success. Having been paid a flat rate of $10 an hour to create her masterpiece, there was no timely thud of a large royalty cheque every month to demonstrate her achievement. She was abandoned from a corporate point of view too, virtually airbrushed from the game's development credits on its release. It's understandable in a way from Melbourne House that they took that action. Many other games around the time had anonymous developers (who remembers David Ward crediting himself in every early Ocean release) and not having one of the game's developers around to talk to the press and conduct interviews may have proven difficult.

Thankfully, with the invention and growth of the internet Veronika began to receive e-mails from fans of the game, the first being an interview for an Italian fan-site in 2001. The recent explosion in social media and corporate networking sites has meant the volume of mail has increased. *The Hobbit* has subsequently featured in museum exhibits, a preservation project and a whole raft of publications, including Retro Gamer Magazine, and the 1001 Videogames That You Must Play Before You Die book. She herself was the star of Great Big Story's "The Hunt for the Hobbit's Missing Hero", part of their Emmy® nominated series of videogame documentaries. The short film is a fitting tribute to Veronika's wonderful legacy.

**[Veronika] Thank you! It was very special to me to have the producers reach out to me, and to come and film. It's been an honour to discover how many people's lives I've touched. It's been a privilege to have people track me down to tell me the impact the game has had on their lives. People became interested in interacting with people rather than shooting them in shooter games, or puzzle solving, or computers, or linguistics. Many people worldwide have told me it caused them to learn English or sparked their interest in reading. One person told me he went from reading Enid Blyton level, to reading Tolkien. I recently had a colleague from Spain tell me he shocked his English teacher in school at the time by knowing the word "portcullis"!**


sinclair
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# GARETH PITCHFORD

Satirical adventure designer and Twilight Inventory author **Gareth Pitchford** wrestled with the intricacies of *The Quill* and *GAC,* before finding a spiritual home for his sense of humour and writing talent with Scott Denyer of Delbert The Hamster Software.

***The Hobbit*** **was probably the earliest adventure game I can remember playing. Both my Dad and I were big fans of Tolkien, so it was one of the few full price games that we bought new. The inclusion of a copy of the novel undoubtedly sealed the deal!**

**To help us complete the game, we picked up a copy of David Elkan's 'A Guide to Playing *The Hobbit*'; which must have been one of the first videogame strategy guides created. It seems there were a lot of people who were very keen to find out how to get out of the Goblin's Dungeon.**

When were you given a Spectrum – it seems to be your love?

**We had started off with a ZX81, [...] not long after, we picked up a 48K Spectrum from Lewis's, when it was on offer with the 'Six Pack' [of games]. [We] eventually upgraded to a Spectrum +3. My Dad and I clubbed together to buy it through the Grattan catalogue... paying back the money over 100 weeks... with plenty of interest added on, of course. It must have cost a fortune. It was worth it, though. Having a disk-based system was very convenient for writing and playing adventures. By 1992, I'd picked up a Sam Coupé and that became my new 'Spectrum' of choice.**

What other mainstream adventures did you play?

**Aside from early adventures like *The Hobbit*, *The Lord of the Rings* and *Valhalla*, I didn't really start appreciating and getting into adventure games properly until the latter half of the 1980s. I eventually realised that adventures were something I really liked, and could actually complete, through playing the examples included on the covertapes of magazines such as Sinclair User, Your Sinclair and Crash.**

**Incentive's *Ket Trilogy,* the *Legend of Apache Gold, Winter Wonderland* and *Karyssia – Queen of Diamonds* were all showcased on the Crash covertapes. And on the Your Sinclair side of things, *Red Door*, *The Gordello Incident* and *A Harvesting Moon* gave me my first sample of more indie, homebrewed adventures.**

Did these pique an interest in writing games?

**I'd always found the adventure columns in the mainstream magazines very interesting, particularly Mike Gerrard's writing in Your Sinclair, but**

now I started actively playing the games, writing in to the columns, ordering from the indie publishers and offering help to other gamers who were stuck in the adventures that I'd completed.

On the subject of Mike Gerrard's column, I think one of John Wilson, of Zenobi's, masterstrokes was putting together the first *Best of the Indies* compilation for Your Sinclair readers. That first discounted cassette, featuring Tartan's *Double Agent*, Linda Wright's *Cloud 99*, Terry Taylor's *The Labours of Hercules*, Jack Lockerby's *Domes of Sha* and two of Zenobi's own title was surely responsible for introducing a lot of players to the range and quality of homebrewed adventure games.

What impact did *The Quill* and its peers have on the industry and for indie creators such as yourself?

*The Quill*, *GAC* [*Graphics Adventure Creator*] and *PAWS* [*Professional Adventure Writing System]* removed the barrier of entry for wannabe adventure game creators. They allowed adventure players to easily become adventure authors, producing fast, feature-rich and responsive games without needing detailed knowledge of assembly language. And once the game was created, authors could freely distribute their adventures without having to worry about permissions or license fees.

The decision by Gilsoft particularly to omit the need to pay licensing or royalties had big repercussions didn't it - how different could the landscape have been with a more costly barrier to entry?

Without the various game creation tools that allowed hobbyists to easily produce their own titles, I think text adventure games would have died out as soon as the big publishers decided they weren't making enough money from the genre.

You originally used *GAC* but then switched to *The Quill* and eventually *PAWS*. What differences were there between the platforms and why did you switch as a programmer and writer?

Even though *GAC* technically supported more locations, *PAWS* allowed you to create bigger adventures, even for 48K machines, because of the way the creation program used overlays to load in parts of the adventure writer as they were needed. *PAWS* had a pretty effective built-in text compression utility [...] and an option to create adventures specifically for 128K machines; *GAC*, on the Spectrum, was 48K only.

The fact that you could create your own subroutines, using the *PAW's* user-defined process tables, made that package more powerful and elegant as a programming tool. There was the ability to call external routines (which savvy programmers could use to load graphics or produce visual & audio effects). Useful quality of life features, like RAMSAVE and RAMLOAD were available as standard. *PAWS* also made altering the look and feel of adventures very easy; allowing authors to lock some text in place and allow other parts to scroll underneath. This meant you could have the location description on screen at all times, should you desire, so players could easily refer to it and not have to constantly REDESCRIBE the location. It wasn't so much that *PAWS* adventures all looked very different, in reality they often used similar screen designs, it was the fact that they looked different to "old" adventure games. *GAC* games, with their vertical scrolling and the often-used default font, tended to look and feel very dated indeed.

Your first adventure, *Microfair Madness* was released in 1991. We are beyond the Spectrum's commercial life, and most gamers had moved onto the ST or Amiga, why didn't you?

I never had a 16-bit machine so writing an adventure for 16-bits was never an option. Saying that, even adventure playing friends, that moved to the next generation, never seemed satisfied with creation utilities like *STAC*, preferring to continue to write and play titles on their 8-bit computers.

It was the late eighties when I began seriously exploring the idea of writing my own adventure games. In the past I had borrowed some adventure creators, like the *GAC* and *The Quill*, off friends. These copies... well, how shall I put it... came without all the necessary documentation... so they just made me more even more baffled as to how to start.

I invested in a copy of Tartan's *Adventure Builder System* to see if I could produce anything with that. This was based on the code that Tom Frost used for his own adventures. In his hands, it did amazing things. In the hands of a complete novice, like myself, it was just too overwhelming, so I decided to see if I could convince someone else to program my ideas for me. I wrote in to Mike Gerrard at Your Sinclair, saying that I'd designed an adventure and needed a programmer, and he put my request & address in his column.

That led to a working relationship with Scott Denyer of Delbert The Hamster Software?

Scott had previously written *Arnold the Adventurer* for Zenobi Software and had decided to that he would self-publish his next few games. He spotted my request for a programmer, in a two-year old copy of Your Sinclair, and got in touch to ask if I was still looking for someone to collaborate with.

You designed *Microfair Madness* and Scott programmed it. Tell me more about the inspiration for the game.

Despite having never actually been to a computer fair, I liked the idea of using a convention or exhibition as an interesting setting for some strange events and a way of bringing together lots of different characters. [Its] a cross between a time-capsule and a teenage diary for me. It incorporates almost everything I was interested in or that featured in my life at the time. Whether it's TV shows like Doctor Who and Star Trek, 1950s radio comedies like The Goon Show (not something your average teenager was into back then) or the music of Jean Michel Jarre. There are puzzles based on objects that I had in my bedroom and cameos from all the various people from the adventure game scene, that I'd read about in magazines.

You included a rather nice idea within the adventure - the ability to play other games within a game, beating the *Maniac Mansion* Easter Egg in *The Day of the Tentacle* by a few years?

As the setting was a computer microfair, I thought it would be quite cool if you could actually transport yourself into the various adventures that the vendors were selling. It allowed me to play about with some ideas for more compact games. As the name might suggest *The Hoppit* spoofed the Goblin's Dungeon scenario in *The Hobbit*. *The Search for Smok* was a sci-fi parody, bridging the gap between the two main parts of the adventure. One of the other mini-games, *The Quest for the Holy Snail* was later expanded into a standalone release.

It was definitely a lot easier coming up with the idea of including the minigames knowing that someone else was going to have to figure out how to program them.

What was your own process for writing an adventure?

I used to start with pages upon pages of scribbled notes; listing ideas for puzzles, the key events in the story, potential characters, bad puns and other jokes. Usually bad jokes. Then I started drawing up maps of the locations, filling the page with annotations showing where all the objects and puzzles were to be placed, and how they linked together.

Once the adventure was planned out completely and I was happy with how everything worked I would then start on the actual text. I'd write everything out on paper first, beginning with the location text. Key words in each location were highlighted so I could refer to them to write all the additional descriptive text. Finally, I'd list and detail all the puzzles with the appropriate matching responses.

This way of working was originally born out of necessity... I'd design the game then copy out everything by hand so it could be sent off to Scott to program the actual adventure on the computer. [...] Two of the most important qualities that Scott had were that he owned a copy of Gilsoft's *PAWS* and that he had the ability to read my dreadful handwriting. On a more serious note, Scott had a similar sense of


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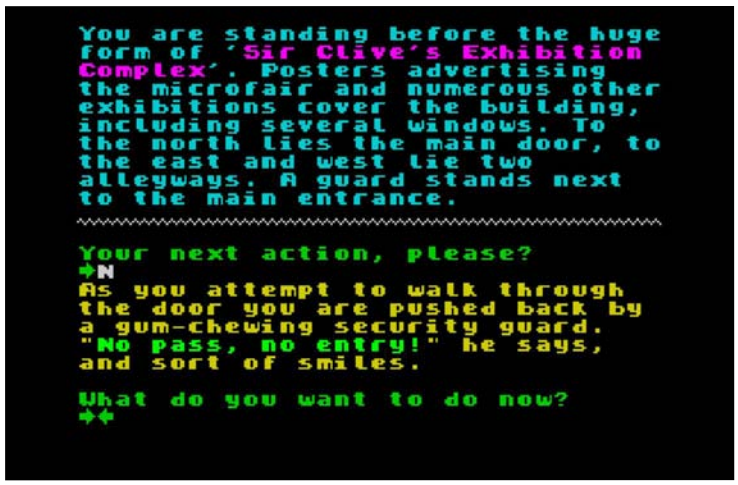
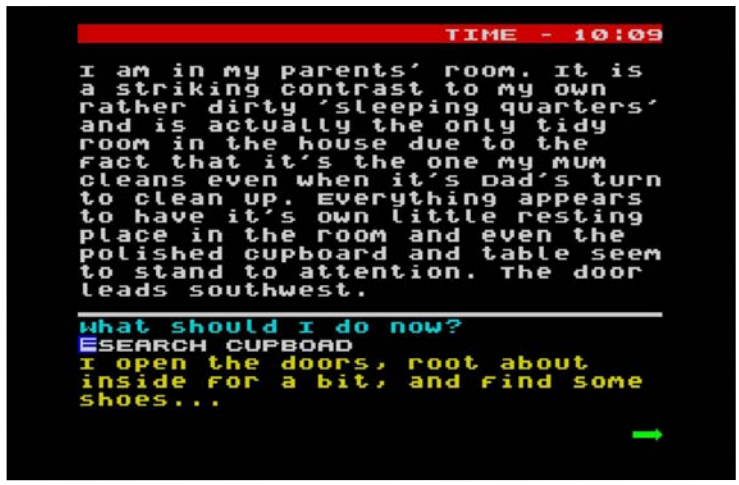
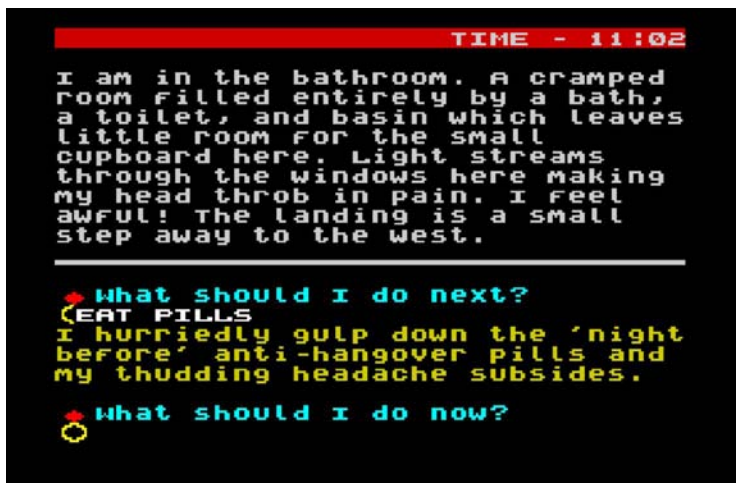



**[Microfair Madness]** Gareth's first, and one of his best adventures, set in and around one of the computer shows of the late 80s and early 90s. There's plenty of taking the michael, groansome puns, and oodles of references to personalities at the time, including an appearance from adventure guru Mike Gerrard.

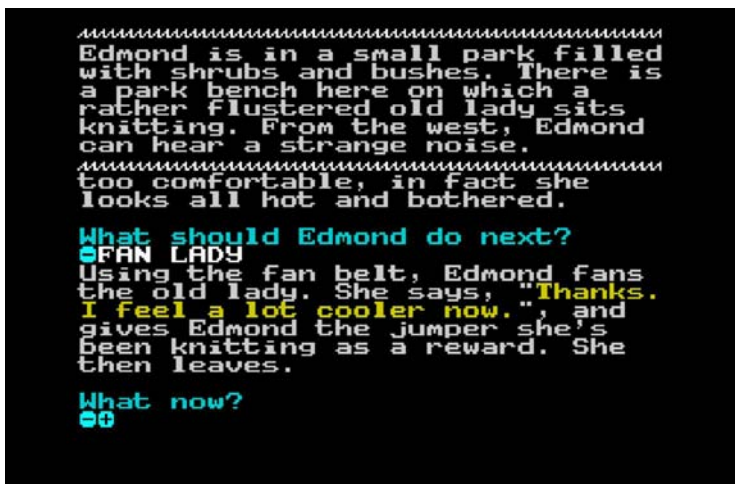



**[First Past The Post]** In *First Past the Post* you are Ernie Spludge, a character never far away from trouble. After falling out with his fiancée and sending her a rude letter, he quickly realises the error of his ways. It's a race against time in this tricky and humourous game to intercept the letter before its delivered and the romance is ruined.

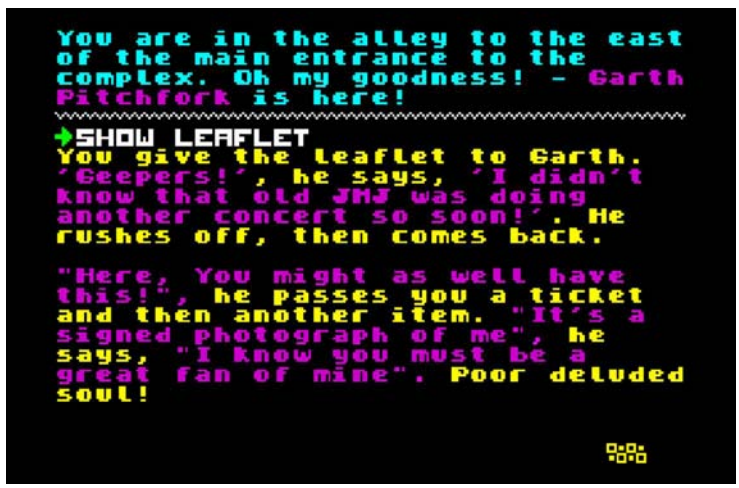

**[The Quest for the Holy Snail]** What is it about the Arthurian legend and adventure games? *Snail* in fact is an expanded version of a mini-game that first appeared in *Microfair Madness*. There's plenty of fun, Tolkien/Arthurian references and good use of *PAWS* too.




**[Get Me to the Church On Time!]** Ernie Spludge is back, and this time he's drunk - well, hungover, after a heavy stag night. Suffers a few annoyances, like having to hit a key after actions, and a broken GET ALL command - but a welcome return for the anti-hero Ernie.




**[Life of a Lone Electron]** Rewriting Atomic Theory, *Electron* has you playing Edmond the Electron, crash landed on the planet Elektronz and trying to escape. Nice presentation and surreal puzzles (a fanbelt used as a fan) await you in this "educational" game.




**[Personal Computing Whirled!]** A sequel of sorts to *Microfair Madness* that was designed as a promotional release. It was initially distributed through From Beyond PD, as well as given away as a free adventure with the Sam Coupé Adventure Club magazine.

**humour, knew his way around the [utility] and seemed to have endless enthusiasm for bringing projects to life. For our games together, I did all the design and writing and Scott did all the actual programming. And sneaked in a few of his own jokes.**

**One of the most important parts of the game creation process was the playtesting. Each game was generally sent off to at least two different playtesters and their detailed reports of bugs, spelling mistakes & suggestions for improvements were carefully reviewed and acted upon (if possible) before the games were published.**

*Microfair* was well received by Crash who said it was "a great game", and Your Sinclair who said "it's inventive [and] funny when it wants to be", that must have been fulfilling?

**Having our adventure reviewed in the same, commercial magazines that I'd been reading for years was great. I was a little sad that we managed to miss Mike Gerrard's tenure, particularly given his role in the game's creation (and in the actual game itself). He departed Your Sinclair just as we were finishing the adventure so we managed to squeeze in an in-game reference to the move. Tim Kemp's full-page review more than made up for any disappointment. I think I managed to impress my Computer Studies teacher, who was a Your Sinclair reader, with that.**

A reflection of your all-round creativity is the fact that you drew the distinctive artwork for the advertisements and produced the loading screen too?

**When you were self-publishing a game you had to do all the work yourself. [...] Scott did all the inlay designs and was the poor sod who ended up duplicating cassettes and stuffing jiffy bags.**

You followed the success of the game with an obligatory sequel called *Personal Computer Whirled!* - but this time without Scott?

**After our first few releases together I acquired my own copy of the *PAWS* which meant we could both concentrate on our own games. *Personal Computer Whirled!* was a mini-sequel to *Microfair Madness*, released as a Public Domain/promotional title. [...] I wrote it primarily as a way of learning how to use PAWS. [...] Scott decided he really needed to concentrate on his studies at college so I published my next games through Zenobi Software.**

Did you change the way you worked now you were coding?

**I worked in much the same way. [...] I'd generally still draft out the location descriptions on paper but a lot of the other text was written directly into the computer as I built up the code. I now also kept pages of notes about what each 'flag' did and made sure I saved copious amounts of dot-matrixed sprocket-fed printouts of the database. Just in case the worst happened and the adventure saved to tape or disk failed to load.**

Did you prefer to go down the humour approach to writing adventures? Did that suit your personality? It was one area of adventuring that was hugely popular – with St Brides and Delta 4 taking comedy and satire and parody into the mainstream?

**I think I probably found it easier to write humorous games that weren't restricted by the constraints of reality. I'd never played any of the Delta 4 or St. Bride's titles, but I was heavily influenced by the work of people like Spike Milligan and Douglas Adams. I did have several more serious titles in development, which I always had a feeling would've sold better, but for various reasons they were never completed.**

Do you have any rules, or "ten commandments" for others who want to write adventures?

**I would just say: write an adventure game that you'd like to play. I think at times I put things in my adventures just because I thought that's what other people would want to see. Things like sudden deaths or the need to repeatedly examine or search containers. When I go back and replay my old adventures now, they're the things that really annoy me.**

How long it typically take to write a game?

**Looking back, it's hard to remember how long it took to create the games. When you're at school or university, playing and writing games in the evening, free time seems almost endless. I guess it probably didn't take more than a few weeks to produce a regular-sized game. *Microfair Madness,* because of the size, the number of versions and the slowness of collaborating by post, probably took about five months of work. Scott was definitely doing the lion's share of that!**

You split several games into 48K and 128K variant, was this also very time consuming?

**It was certainly a lot less time-consuming for me to write & design than it was for Scott to program. The original version of Microfair Madness was a two (and a half) part 48K adventure. To expand the game, I just had to come up with extra locations and puzzles. However, because of the way *PAWS* utilised pages of memory, when Scott programmed the 128K version he first had to type in everything he'd already coded for the 48K game. Producing *Microfair Madness* was basically the same amount of work as creating five individual adventures.**

*Ernie Spludge* was a game where you experimented with your method of creation, taking inspiration from Larry Horsfield and John Wilson by sitting down without a plan and entering the adventure directly into PAWS?

**[...] I decided to do a prequel adventure [...] and use it as an opportunity to try working in a slightly different way. I still scrawled down puzzle ideas and mapped things out on paper first, but the majority of the work on the game was done directly on the computer. Sadly, the disks with the incomplete code have long been lost and it would be difficult to recreate the work I'd done on it.**

Looking back, which game are you most fond of?

**It's hard to look back on any of my games without seeing the mistakes, obtuse puzzles and glaring omissions. When you end up going online to look up solutions to your own puzzles then you realise you could've probably dropped in a few more hints and made things a little less obscure! *Microfair Madness* is probably the game I feel I have the greatest connection to, but I think the two-part *The Search for the Nether Regions* is the title I'm happiest with.**

You're a member of a popular 8-bit Adventure group on Facebook, and within it you've made several interesting posts on unreleased games you'd designed?

**Like most people that dabbled with adventure writing, I have ring-binders full of puzzle ideas and unfinished adventures. Some games exist only as titles and scribbled collections of puzzles. Others are more fleshed out.**

**One of my first game designs was for a Sherlock Holmes adventure, set within the confines of Baker Street, where the detective had to lay a trap for Moriarty. It was full of flavour text and copious references taken from Conan-Doyle's novels, but I'm not sure it would've ever really worked as an adventure, even as a B-Side. I was a big fan of Tony Collins' adventure *Methyhel* and had started talking to him about producing a sequel to that game to form the second instalment in the *Sinister Investigations* series. I think we had quite a good premise, and some interesting initial ideas for the game but things went quiet on that front when Tony withdrew from the adventure scene.**

***Deception of the Mind's Eye* was one of the designs I came up with after I'd advertised for a programmer in Your Sinclair. It started life as a sci-fi murder mystery based on the beginning of a short story that I'd written. Again, I probably hadn't thought through whether the ideas I had would make a compelling adventure. I'd started work with a programmer on bringing the game to life, but we hit some snags early on and both lost enthusiasm for the project.**

**I liked the title, though, so *Deception of the Mind's Eye* eventually**

**became a two-part fantasy adventure for 128K Spectrums. Part one was finished and the second part was started just before I went off to university. Unfortunately, when I came back at the end of the year my Dad had sold our Spectrum +3, leaving me with no way of finishing the tale! I kept the disks, though, and about twenty years later I managed to recover what work had been completed and uploaded it to the Internet.**

***Destination: Planet of Origin* is probably my completest most-uncompleted game. Looking through my plans, I seem to have finished all the design work for two out of the three planned instalments of the adventure. It was another serious sci-fi game, where you took on the roles of three members of an exploration team searching for the planet of origin of the human species. Each character in the game had their own areas of expertise and abilities, so you had to switch between them and work together to solve the challenges you were presented with.**

**I was partnering with a fairly inexperience programmer on that title who found implementing the multiple character system quite difficult, so things never really progressed further than my notes.**

Moving onto your recent book, Twilight Inventory. Why did you think the time was right to publish a title on niche Spectrum adventures?

**I'd been planning to write a book on text adventures for several years but had never quite decided on the scope or the exact focus. I really wanted to write something about the British adventure scene. There had already been a lot of articles and books on early commercial adventure games but hardly anyone had written about the adventures that I remembered playing; the independently produced, home-grown adventures of the late eighties and early nineties. Those are the stories and experiences that are in danger of being lost and forgotten. Memories fade, disks and tapes fail. Several of the authors who produced the games are no longer with us.**

**[...] I decided to put together [...] something I could complete quickly, using my archive of existing reviews that I wrote for various adventure fanzines in the 1990s. Something that would get the conversation about old home-grown adventures started.**

Did you approach any publishers with the idea?

**Oh no. I could only ever see Twilight Inventory appealing to a very, very small audience. A book on text adventures for the Spectrum would only interest a small number of people. A book just on homegrown text adventures, mostly produced after 1990, is just about as niche a niche as you can possibly get. Another issue is that text adventures aren't hugely visual. It would be a lot easier to convince a publisher that a book with glorious, 1980s pixel art is a good idea than it is to sell a book with pages upon pages of screenshots of blocky writing.**

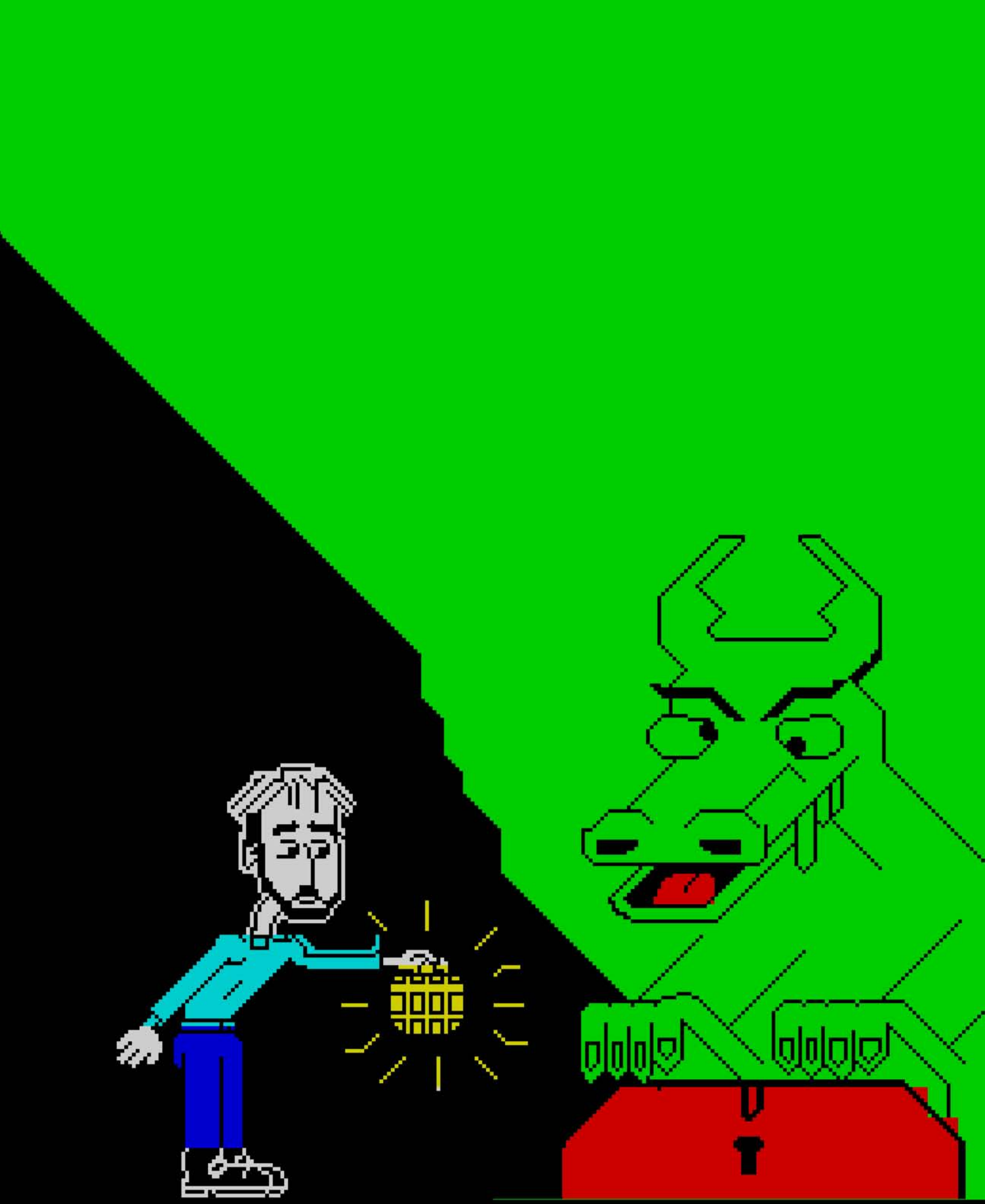
I loved the cassette style artwork for the book, though probably not noticeable unless you view the PDF?

**I wanted the book to look like a homegrown adventure cassette box, so I deliberately used a very rough doodle (as if sketched out on lined paper) as part of the cover.**

**The back of the book is styled like the reverse of a tape box, with a sticky note attached, and I even popped one of those gold 80s-style address stickers on the front too. I was tempted to use some Letraset transfers or embossed Dymo labels. Perhaps I'll dig those out if I ever do a second volume.**

How successful has Twilight Inventory been, and what has been the response from the ever-growing adventure community?

**When it was released there was a comment from someone on one of the Facebook groups about how they could only ever see it getting single-digit sales! It exceeded that target within the first day, thankfully! I am very pleased with how it's done so far. It's been great seeing people post pictures of the book on social media, especially alongside their retro gaming collections. It's nice that it seems to**



have got people talking about some of the later indie titles, as that was the whole point of writing it.

You've omitted your own games, why?

Yes, I deliberately didn't mention them. There were far too many other interesting games to write about and it didn't feel right to review my own titles. I'll leave that job to other people.

You've also made a brave decision to release a digital download for free, which I think is commendable.

[...] I wanted to give everyone a chance to see if it was worth spending their time or money on. The option is there to pick up a printed version or Kindle edition for those that want it. I've been surprised by how many people actually have.

Can you speak a little more on the legacy of such publishers as Zenobi, FSF Adventures and The Adventure Workshop who really supported this community beyond the commercial life of the Spectrum?

There were lots of adventure authors who published their own games but companies such as Zenobi Software, The Guild, and The Adventure Workshop, gave those people, who didn't want the hassle of dealing with postal orders and stuffing jiffy bags, a way to release their wares to the wider adventuring community. As an adventure author, it was nice to have all the business side of things taken care of and, as an adventure player, it was also convenient to have a reliable, regular, trustworthy source of new experiences.

I think it's important to remember that, although it started out as a homegrown enterprise just selling his own games, John Wilson's Zenobi Software was, for all intents and purposes, a commercial company. John did everything in a professional way with proper contracts, a generous signing-on fee and regular royalty payments. Zenobi was run as a business, with all the bookkeeping and tax obligations that it required. He also set the standard for customer service and proved that, by delivering quality titles to a dedicated audience, text adventures had a far longer life than the mainstream publishing companies had predicted.

As you mentioned, the book is an updated compilation of reviews you undertook in the 1990s for various fanzines - these were key in driving sales of games and maintaining a community.

Although each commercial magazine and 8-bit machine had its own community, and often its own fanzines, Adventure Probe was the central hub of the British 8-bit adventure scene. Throughout its twenty-one years of existence, it acted as the forum and focus point for the hobby. Its extremely busy letters pages were filled with news, discussions and lively debate, functioning much like social media and forums do today. It was a real community magazine where people formed friendships. People would join as readers and often go on to be reviewers, playtesters and adventure writers themselves.

What about the conventions?

The Adventurer's Convention was an annual UK event set-up by several readers of Adventure Probe magazine. The first event, in 1990, saw over a hundred people gather together in a hotel in Birmingham where there were indie publishers selling games, 8-bit and 16-bit adventures to play, an awards ceremony and the all-important chance to finally put faces to names. The first event was such a success that the convention continued to be held regularly each year with the second event, in 1991, attracting over 200 people. The highlight of each Adventurer's Convention was arguably the Megapoints competition where attendees were given a set time to play a specially written adventure to see who could score the most.

The book highlights the importance of women both as authors and players in the community. What do you think of the legacy and impact of mainstream names such as Anita Sinclair and Veronika Megler and female indie authors such as Kez Gray and Linda Wright?

It would certainly be true to say that, in those adventures where you were cast in the role of a named character, that character was often male. However, the player was more usually assigned the role of a genderless "you". The lack of an on-screen avatar, as was common in arcade & action titles, meant that it was easier for adventure players to project themselves into the game.

I don't know if that encouraged a more diverse audience, but adventure games seemed to appeal to people of all ages and from various walks of life. There was certainly a high proportion of women involved in the community. A lot of the fanzine editors, reviewers and playtesters were female. Some of the best examples of games from the 8-bit indie scene were written by women, such as Linda Wright, June Rowe and Sue Medley.

When you went back to edit the texts, did you change anything, or change your mind about any reviews?

Most of the edits I made were to add a little variation to reviews that were originally designed as standalone pieces. I was very keen that the reviews should remain a contemporary assessment of the titles although I did go back to replay some of the games to add extra detail to a couple of the reviews, particularly those where I felt my original judgements were a little too harsh.

Finally, do you plan on writing any new games, or finishing off some of those games that you left on the drawing board. There's the prospect of a new *PAWS* for the Spectrum Next computer?

It's hard to get too excited about the idea of spending a lot of time writing a brand new adventure game that hardly anyone would play. I think that sometimes people are more enthusiastic about talking about the old games that they remember playing, than they are about seeking out and spending time trying new experiences.

I doubt I'd be able to afford a Spectrum Next any time soon, though. It does look like a neat machine, though. It reminds me a lot of my old Sam Coupé. [...] Even today, [*PAWS* is] still a brilliantly simple but powerful programming tool. [...] I'd put on my wish-list [...] an improved editing & input system, and better memory management.

# DESERT ISLAND DUNGEONS

**Gareth Pitchford** is thrown overboard as his ship runs aground and begins taking on water. Wading ashore of a handily placed desert island, his helpful friendly hamster, Delbert deserts the ship with five adventures strapped to his back.

***The Final Demand by Steve Clay on ZX Spectrum***
[Part of] Steve Clay's excellent *Taxman* trilogy, where he cleverly combined traditional adventure game fare with Crystal Maze-style brainteasers and puzzles.

***Agatha's Folly by Linda Wright on ZX Spectrum***
Although *Cloud 99* is probably my favourite Linda Wright game, for my desert island trip I'd choose this longer adventure. *Agatha's Folly* features two contrasting parts, both expertly written and well-worth playing through again.

**Dr Jekyll and Mr Hyde by The Essential Myth on ZX Spectrum**
Something to keep me busy while I waited for rescue. This gothic three-parter, from The Essential Myth, is perfect. It was based on the book by Robert Louis Stevenson and I got stuck in the first section for months on end.

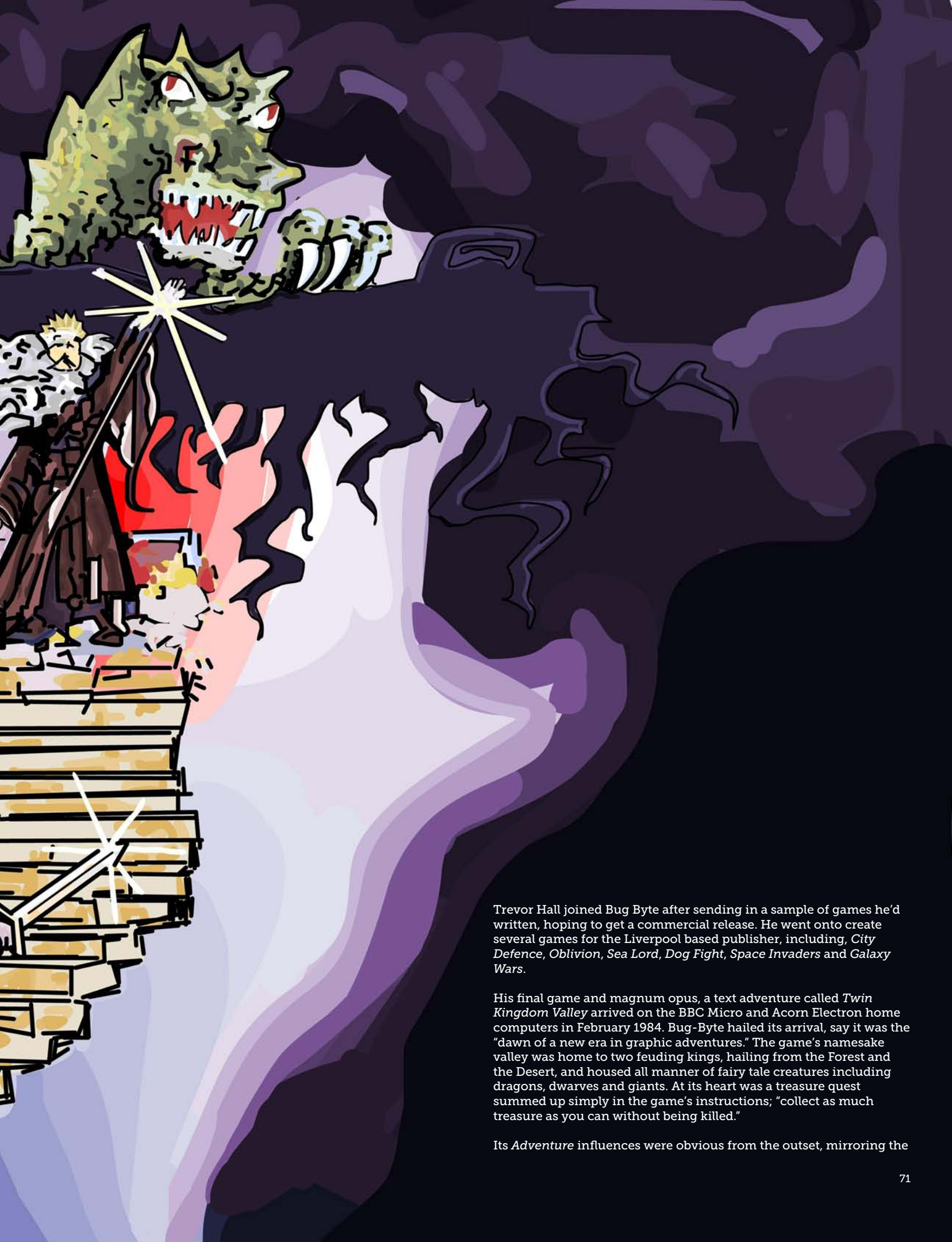
***Brian & the Dishonest Politician by Scott Denyer on ZX Spectrum***
Trying to win votes in an election is a perfect excuse for the usual series of adventure game quests, [and] Scott had the cheek to cast me (or someone with a very similar name as me) as the evil, slimy antagonist!

***The Thirty-Nine Steps by Jack Lockerby on ZX Spectrum***
There's no point just taking games to the desert island that I've already played, so my last game is one of River Software supremo Jack Lockerby's final adventures. Jack had written very enjoyable outings based on classics like Treasure Island, A Christmas Carol and Kidnapped in the past so it would be interesting to make time to play his take on the John Buchan adventure novel.

# TWIN KINGDOM VALLEY

You needed your wits about you and a sharp sword handy in **Trevor Hall's** *Twin Kingdom Valley*, a game still revered 35 years later as one of the best text adventures of all time.

**Format:** BBC Micro
**Publisher:** Bug-Byte
**Developer:** Trevor Hall
**Release Date:** 1983

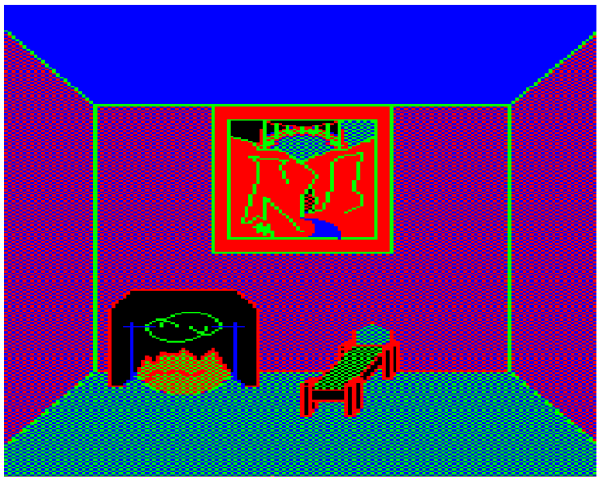
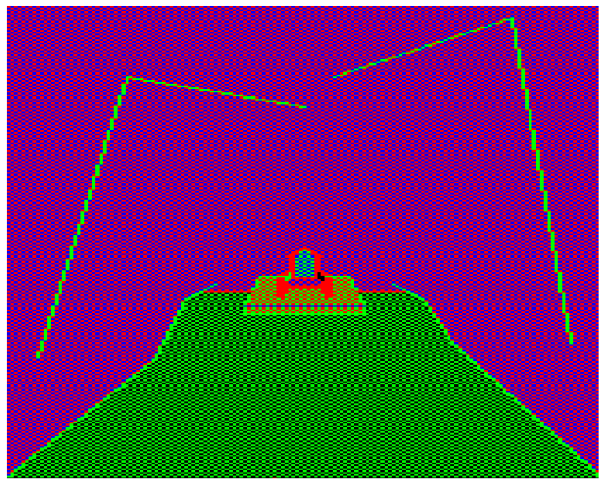


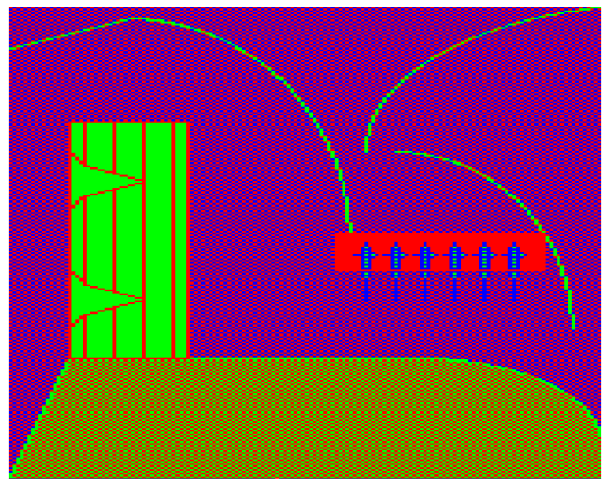
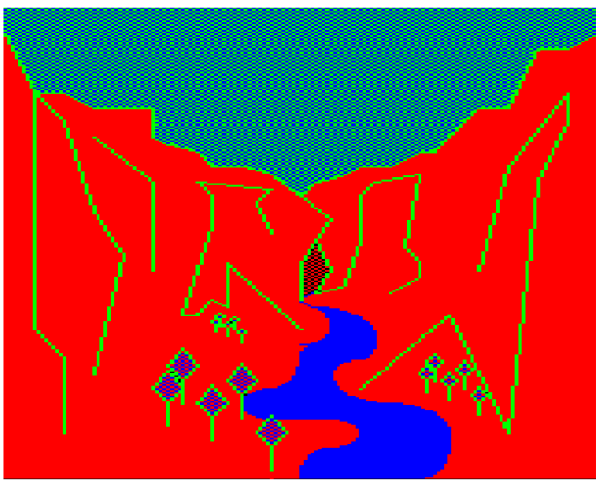
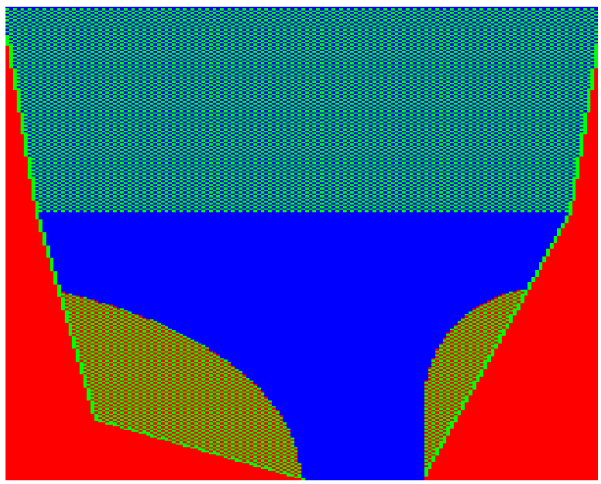
Trevor Hall joined Bug Byte after sending in a sample of games he'd written, hoping to get a commercial release. He went onto create several games for the Liverpool based publisher, including, *City Defence*, *Oblivion*, *Sea Lord*, *Dog Fight*, *Space Invaders* and *Galaxy Wars*.

His final game and magnum opus, a text adventure called *Twin Kingdom Valley* arrived on the BBC Micro and Acorn Electron home computers in February 1984. Bug-Byte hailed its arrival, say it was the "dawn of a new era in graphic adventures." The game's namesake valley was home to two feuding kings, hailing from the Forest and the Desert, and housed all manner of fairy tale creatures including dragons, dwarves and giants. At its heart was a treasure quest summed up simply in the game's instructions; "collect as much treasure as you can without being killed."

Its *Adventure* influences were obvious from the outset, mirroring the



opening to Crowther and Woods' classic. The player in *Twin Kingdom Valley* starts on a road, running from east to west, with a small wooden cabin they've rented from the innkeeper of "The Sword Inn" nearby. Each treasure or "ill gotten gain", gold, silver or diamond had to be "stashed" in the cabin, with the aim to score the maximum of 1024 points.

**[Trevor] I never got very far in *Adventure*. There was some version on some system at the university, which we found fun to play, but, time on those systems was limited, and we had to study sometimes. I think one or more of us had commented about the characters "standing still", [which meant] exactly the same puzzle to solve each time you played.**

That predictability was something that Hall knew he had to address. He started designing a hybrid text adventure and used his experiences taking part in role playing games to introduce a basic fighting system. He added "strength" and "health" that were attributes of the player's character that could be affected by combat, hunger and thirst. Any lost points could be replenished by resting, eating and drinking.

It was an essential game feature for Hall, who expressed that the implementation of dynamism was an interesting exercise and that "programming is fun". He told Edge Magazine in an interview in 2006 "I'd seen adventure games on home computers before and they seemed really boring. The troll was always standing by the bridge. It made no sense! So I thought, why not make every creature in the game, including oneself, pretty much the same. Make everyone able to walk around, pick things up and fight. Let them interact."

**I wanted more interaction, I guess I liked the creatures a little better than anything else. I connected with my creatures. which everyone has some acronym for that I had never heard of at the time. I wanted them to be as real as possible.**

They were very sophisticated ideas for the time, especially in regard to pseudo-intelligent characters – those that could freely move around the game world, making decisions, fighting each other, taking objects and affecting the player's experience of the adventure. It was very reminisce of the thought processes behind the development of *The Hobbit* – coincidentally both in development at the same time but on different sides of the planet. The in-game instructions elude to Hall's thinking: "As you may have realised, this is not only the name of a game, but also of a mythical place in which two kings live. [...] This game is a simulation of the life in that valley. Whilst you play, other creatures will live their natural lives in the valley."

As Veronika Megler, on behalf of Melbourne House, wrestled with Wizards and Trolls in Tolkien's world, Hall implemented a series of simple rules and attributes that he applied to characters in the Valley. In an interview with The Classic Adventures Solution Archive, he told Jacob Gunness "I wanted creatures to make intelligent choices, to know when to walk and when to run. When they encounter you, they'll make a decision whether to fight based on how strong they are, or if anyone else is there too. If they're half dead, they'll make a run for it."

**The questions were, how can you make it "fair", so that the same rules apply to "you" and "them". [There were no] special rules for [the player] in battles, [but] the tricky bit was in a turn based game, who throws the first punch? This was balanced by the rule, you can fight first, but if you choose not to fight, to run away, everyone else gets their turn in before you can run.**

**[Left]** Trevor Hall created an exceptionally flexible graphics language for *Twin Kingdom Valley*. Notice the use of repeated tree shapes for forest and cabin picture, and the use of scale, redrawing the canyon but at a small size in the cabin picture.

## EAT YOUR HEART OUT, BILBO!

*The Hobbit* beat *Twin Kingdom Valley* to market, but drew the obvious comparisons on release. Keith Campbell in C&VG magazine contrasted the implementation of their non-playable characters.

Bug Byte, keen for those who had played Melbourne House's classic to buy their game too, ran a series of adverts with a cheeky "EAT YOUR HEART OUT, BILBO!" slogan.

It made for some "life-like" actions, and the illusion of intelligence achieved with simple decisions for the characters: Could they pick up a weapon, were they strong enough to fight, if not should they flee, or should they wander around instead? You could stumble across two characters fighting each other, and then steal their weapons, or the non-playable characters [NPCs] would steal your weapon, or even run off with a piece of inventory or useful object. It was great stuff, and the kind of behaviour that elevated the experience beyond that of a bog-standard adventure game.

There was a good chance that no two games would play out exactly the same way. Throw into the mix an overlooked attribute that Hall implemented, a feeling of wellbeing in characters, a sense of self-awareness and one of loyalty. The NPCs could regard the player as friend or foe. Edge magazine covered one of Hall's favourite set pieces deep in the Castle dungeon where freeing incarcerated characters made them grateful: "Ingratiate yourself with the giant by curing his illness and he'll join you in battle. Even better, storm the dungeon, hand out your spare weapons to grateful elves and suddenly, you've got a tooled-up posse on your side."

A final variable of "fragility" was added to each object, meaning an over-used object would eventually break. There became a choice of weapon when fighting a foe – weapons could be rendered useless or were less effective against a certain type of adversary. All of it was very simple, but the simple rules generated perceived complex behaviour and it became a good early example of what would become "emergent" artifically intelligent behaviour.

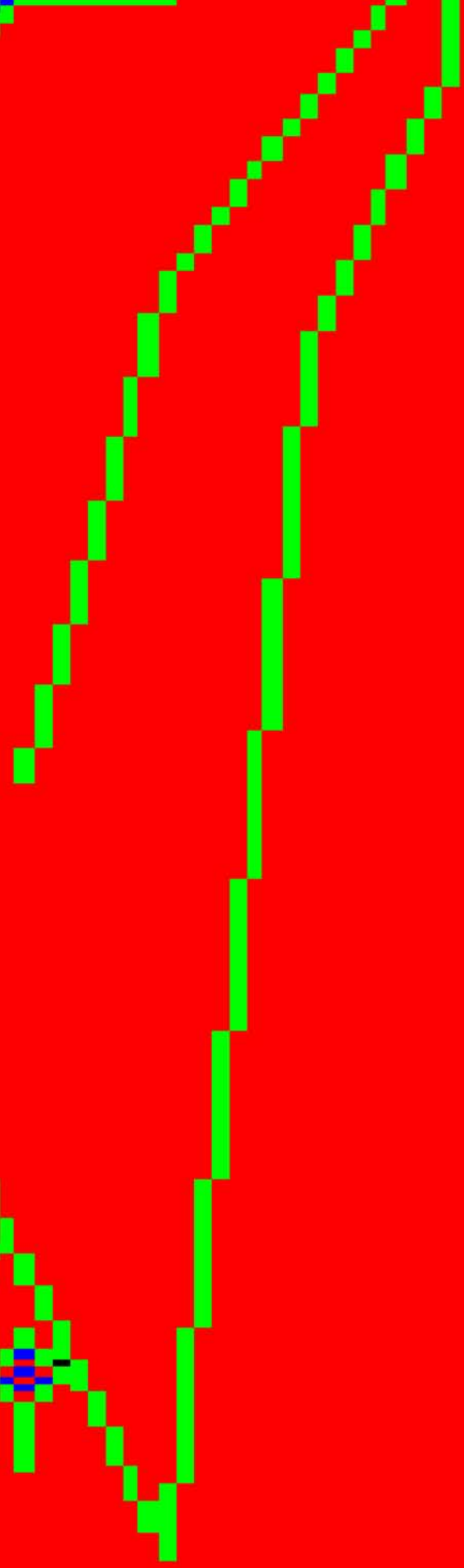
**We played the game 100s of times, making sure that you could not easily "ignore all weapons, and just go for treasure". So it was balanced by playing over, and over, and over - adjust "Giant's maximum health" or "weight of a sword" until it all made sense. The characters had, mostly, not that much to do with completing the game, but became more a level of difficulty.**

Once several of the locations had been created, and Hall played through what he had, his thoughts turned to further enhancing the experience.

**After just a little experimentation with "you are on a road", [I thought] how can I describe a location better than this? A few things happened. Locations point to other locations, via an "exit" so you can make more words by reusing the names of other locations, [and I wanted] the game [to] look 3D, so you can see distant locations.**

Memory was at a premium, so to address the need for graphics, Hall created one of the first portable graphics languages for generating images. During his computer science studies at Manchester University he had experience of coding line and circle drawing algorithms.

Using that knowledge he devised a system of arcs, lines, flood fills and scaled point plotting – the relative positions of line start and end locations on screen. He told C&VG magazine "it's a very crafty



programming system" that could easily be implemented on other micros, having the relative positioning adjusted for the target screen resolution and colour palette.

**Graphics [came] pretty early on in the concept. In a 32K BBC micro, I think 10K is [taken by the] screen, [and] allowing 1 or 2k for working memory, all games [would] have to fit into about 20K. The graphics took up a few K, maybe 4K to 6K, maybe more with the drawing code. I had no other idea how to make it fit.**

Having a series of instructions on how to build images provided to be a very flexible solution. The use of relative plot points meant that each draw element (a line, or circle or whatever) could be moved around on screen, and scaled up or down, an extra arrow to the bow of the game The Castle or Waterfall for example could get bigger as you moved towards them, or smaller as you journeyed away. It was a nice compromise over the original true 3D that he wanted in the game.

**I wanted to draw "what was ahead". I also loved recursion. after all I had previous written a chess game just for fun. So the idea of using that to "make a forest" was just fun. Anyway, it saves a lot of text if you can see the castle getting closer.**

Location artwork, provided by a friend, Pete Skinner was optimised to fit within the constraints of the drawing routines. It took a little work to make it ready for the BBC, and Hall had to optimise the overlapping of objects to minimise any unwanted behaviour from the flood fill routines. Finally, being able to call a series of instructions as a "sub-routines" meant that certain images could be drawn over and over again, providing further extensibility, and an easy way to fill the screen with trees in a forest!

**That wasn't much "innovation" to me. All languages, from the simplest assembler have "JSR" for "Jump to subroutine", so naturally, a language has subroutines, loops etc. The idea that something can be in the distance required scaling, so I just combined the concept "draw some other image, optionally scaled down by factors of 2"**

One of the novel aspects of this early graphical text adventure is that the pictures of the locations provide clues. Despite not being mentioned in the description, in the opening wooden cabinet location there is a picture hanging on the wall. With closer inspection, more detail is revealed and it showed a bridge spanning a river, as it enters a cave between two high walls. It was a clue to what would happen later in the game with the introduction of a magic wand. Oh, and they could be turned off – perhaps something to placate the purists (and there were many of them) that text adventures, meant text adventures.

**Well, that one was easy. "Canon picture with bridge" was just something like "location image 150", as that exact picture was used as a location image when the bridge has been created. So I thought it would be fun to show it, as if it was "always there a long time ago", using almost no extra code.**

The impact of graphics in an adventure at the time cannot be understated, and Bug-Byte rightly trumpeted this in all its press material. It was a recognisable metric, and *Twin Kingdom Valley* could proclaim that the game had "over 175 screens". Just having an adventure with graphics on the BBC and Electron was ground breaking headline news – and magazines such as Micro Adventurer and Electron User pushed the virtues of the game. *TKV* stood out from its contemporaries such as Level 9's *Colossal Adventure* and *The Hobbit* on the same platform that were purely text-only.

But, as with *The Hobbit*, it was the inclusion of Hall's ambition for creatures that lived their lives independently of the player gave the game energy and its long-lasting appeal. Creating a sense of a living world, with graphics, became an elusive goal of adventure writers and adventure creating utilities over the coming years. It wasn't until the release of *The Illustrator* by Gilsoft in 1985 and *The Professional Adventure Writing System* in 1986 that both were in the hands of independent developers.

The puzzles may not be the most convoluted (you need a flint, and

# CURRAH COMPLIMENTS

Despite having a voice like a malfunctioning Metal Mickey (one for the kids), the Currah µSpeech support included with Twin Kingdom Valley did yield Trevor a pleasant surprise.

Thanks to its speech synthesis a young blind child was able to play and enjoy the game with his father. Trevor recalls receiving the letter, "I got [it], the Dad was so happy. We got a lot of fan mail at the time, most of which wasn't so unique. So Nice."

Unfortunately he no long has it, more than likely leaving it along with a huge box of code printouts when he left Britain to live in the States.

can find one in a quarry for example), and its parser was limited (33 words in fact), but that was reassuring in many ways.

Finding which weapon to attack which creature was trial and error, and it had a short and functional *Adventure*-like approach to textual descriptions of locations. There was a lot (a lot!) of wandering around, back and forth, fighting, running, turning the lamp on and off, and opening bronze doors with bronze keys, but it was hugely compelling and atmospheric.

It's strong sales on the BBC Micro and Acorn Electron meant it was ported to the majority of home computers around, with Hall doing all of the 6502 CPU conversions himself. Its svelteness and smartness meant that most platforms included the graphics, apart from the Commodore C16.

**[My port] to the C16 proved that the game engine, excluding graphics was less than 16K. Pete [Skinner] was paid better than beer money for the [graphics], as was a Z80 hacker [for the] Spectrum port, as we needed it fast!**

The C64 version made use of its small amounts of additional memory with small animations ("Well, it had a sprite chip so I thought to use it") and extra rooms. There is a grating from the spiral staircase that takes you to a hut in the mountains, where you get a silver dagger to give to the witch in the castle. In the BBC version there is no silver dagger so you need to kill the witch with the staff. On the Spectrum version (arriving ten months after the BBC/Electron and C64) the Currah Microspeech peripheral was supported, but was best ignored – unless you wanted to play the game with *every* *single* *word* read in a grating robotic voice.

Regardless, it was in the Valley and its living creatures where its charm lay, and it was hugely successful across all platforms. Search eBay for it and you'll be rewarded with multitude of results – surely a sign of success. It was critically acclaimed, even in C64 and Spectrum circles where the story telling had been judged by some to have moved on in adventure land. Micro Adventurer commented "This adventure is sure to become a classic", with Crash saying it was "well worth exploring by any adventurer".

It is testament to Hall's craft that he managed to cram such an inventive adventure alongside the BBC's Mode 2 graphics. From his various interviews it's obvious that he found it just as rewarding as a technical exercise as he did a creative one - akin to the Austins at Level 9 and the challenge or their A-Code, or Mike Singleton and his Landscaping techniques. For British home computers with their limited RAM and cassette storage systems, a lot of enjoyment came for programmers trying to achieve as much as possible within the confines of that very tiny space.

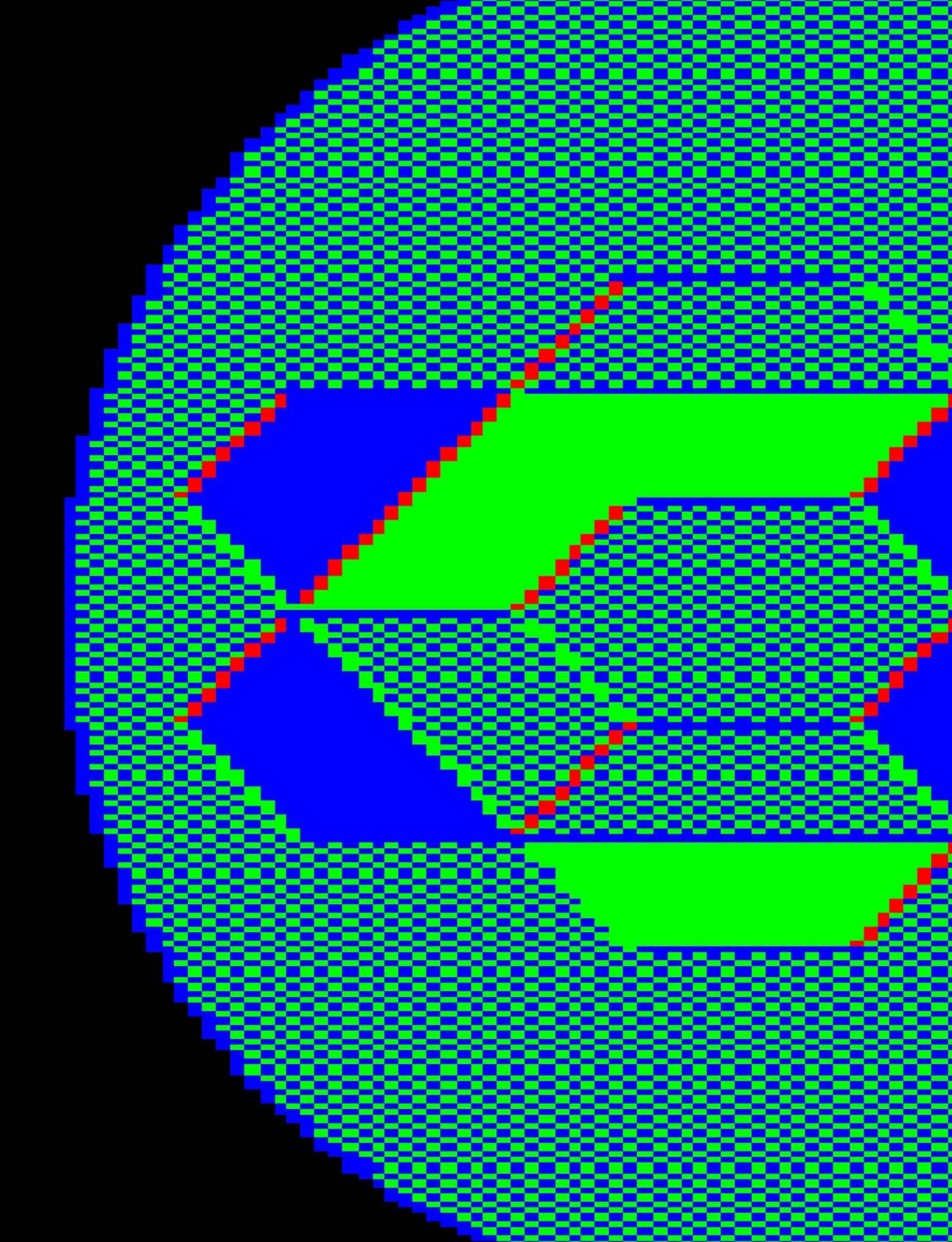
Once you'd found all the bags of silver, hit the dragon with the staff and crossed the crystal bridge to steal the crown from the Desert King the game ended with the secret of life appearing in the room. What was the secret of life? After LOOKing at it you could let your own life ebb away as the machine painfully churned out a complex and never-ended diamond fractal on screen. Thankfully this painful process can be speeded up in a modern emulator and the game then ended with a rather cryptic message. It was a disappointing end, and a head scratcher to why this was included. The narrative defeating one of the kings and taking all of the treasure would have been sufficient. It's just one of TKV's foibles (along with the annoyance of having to reload if you die) but I can forgive it. For me, I won't forget its grandiose, its scale, ambition, and the graphics on my bloody Acorn Electron!

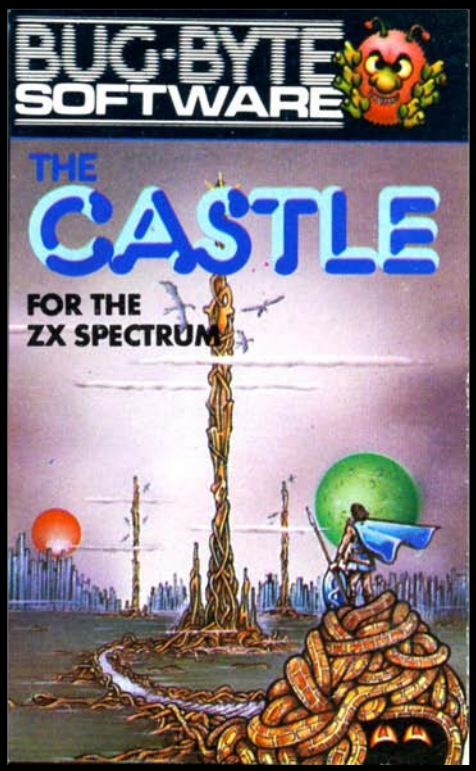
**Yes, basically it was a treasure hunt game! There had to be a way to know that you are finished, and I wanted it to be a bit of a puzzle to find "the end". If I had 30GB of space, I would have made a ½ hour glorious cut scene. I had used up 99% of the memory already for the game, so needed some small way to let the player know he was done. [It was] purposely surreal, [and] my friends thought it was funny.**

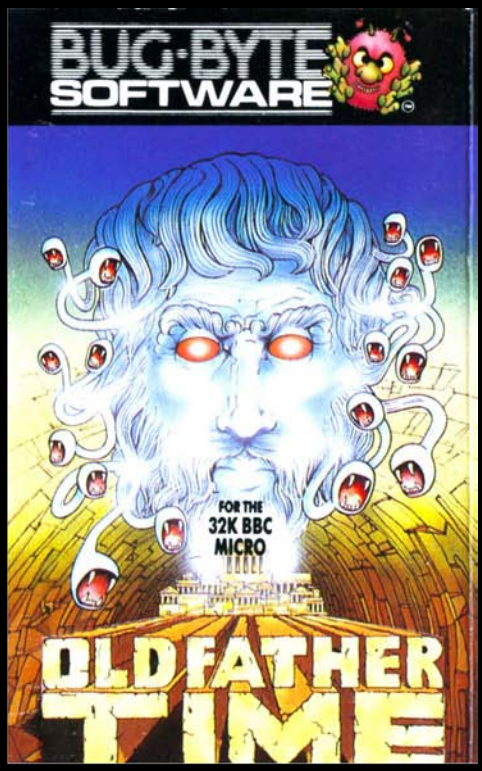
As for the message?

**[I] needed [it] to fit in 100 bytes. THE SECRET OF LIFE IS SIMPLE YET**

**[Right]** What was the secret of life in *Twin Kingdom Valley*?




**[Above]** Bug-Byte released a series of adventures for different micro computers.

**COMPLEX, AS IS THE PICTURE OF IT. STAY COOL**

We never did get to return to the Valley. There was a planned sequel called *Valley of Gold*, but Hall shelved the project when Bug-Byte collapsed owning him "oodles" of royalty payments.

**I had started on a dynamic landscape tool such that forests, deserts, etc would be different in each game restart, but never wrote any game code. No story line was written, but you would be able to travel the river of gold to a vast land. No more pathetic 175 locations. I recall some ideas like "A wooden boat would burn in a river of molten gold", so the game had to be started well. Some part of the original game would lead you back to that river.**

Hall left the industry soon afterwards, but teamed up with multimedia agency Silicon Magic almost twenty years later to develop a mobile version of the original game, providing his expertise in creating tools to manipulate the original databases and worked on the new graphics engine code. The Pocket Gamer website hailed the triumphant return, with reviewer Paul Drury commenting "*Twin Kingdom Valley* is a remarkable achievement in its own right, but its greatest triumph may be to introduce a whole new audience to a particularly rich and largely forgotten realm of video gaming." Concluding that "[*Twin Kingdom Valley* is] an ancient quest, beautifully reborn."

Despite the positive acclaim the game failed to sell, perhaps ahead of its time, unable to be fully appreciated on the limited screen resolution and usability of the target mobile phones of that period.

Hall has several incomplete versions that he's attempted to bring up to date to work on modern systems, but has yet to find the time to finish one. For now, we'll have to be content with emulation, but let's hope we will all be walking in Valley and hitting Dwarfs with hammers before too long.

# DESERT ISLAND DUNGEONS

Having stashed his ill-gotten gains in a wooden hut, **Trevor Hall** sets sail from Watersmeet, only to be shipwrecked on a desert island far away from Twin Kingdom Valley.

I would sit there and write my sequel, *The Valley of Gold.*

I don't get that excited about other people's work. Most of the fun is creating?

My thanks to the generosity of every contributor, who gave their time to humour me and answer questions they've been asked a thousand times before.

**Special thanks to many friends, retro acquaintances, and text adventure geeks, including the usual kindness and help from:**

Fergus McNeill
Tim Gilberts
Gerrard Sweeney
Gareth Pitchford

**A non-exhaustive list of references and other useful information:**

**Books, Magazines and Fanzines**

Retro Gamer Magazine, Future Publishing
Twilight Inventory, Gareth Pitchford
Spectrum of Adventure, Thomas A. Christie, Extremis Publishing
Adventure Coder, Chris Hestler

**Documentaries**

GET LAMP, Jason Scott
The Hunt for 'The Hobbit's' Missing Hero, Great Big Story

**Websites and Blogs**

Mobygames
Spectrum Computing
Lemon64
The Digital Antiquarian
The World of Spectrum
Internet Archive
Amiga Magazine Rack
The Classic Adventures Solution Archive

**Research Papers**

There and Back Again: A Case History of Writing The Hobbit, Veronika Megler

**Artwork**

Red Moon
Roger Kean, Artwork of Oliver Frey

Anita Sinclair
Commodore Computing International, August 1987

The Illustrator [ZX Spectrum]
Matej Jan

Heroes of Karn and The Illustrator
Terry Greer

**The Classic Adventurer**
**Written and designed by** Mark James Hardisty

**About the author**

Mark James Hardisty is from Sheffield. His weekly pilgrimage to Just Micro as a child left him with an indelible love for Gremlin Graphics.

You can find Mark at @hardistymark, where he tweets about games, getting kids coding, The Cannonball Run, and his favourite game - *Elite* on the Acorn Electron.

**This work is dedicated to:**

My wonderful family – my mum Val, my beautiful wife Helen, and daughters Amelia Rose and Kitty Mae.

Fergus McNeill, a genius, and one of the kindest and humblest people I have had the pleasure of meeting. Thank you for *The Big Sleaze*.