THE CLASSIC ADVENTURER

CALIBUR

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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, 2019**

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JULIA MINAMATA

Canadian indie developer and one-woman powerhouse Julia Minamata is building a homage to the classic Sierra On-Line titles of the 1980s. With lovingly crafted EGA graphics, a sumptuous script and Adlib-era music and sound, *The Crimson Diamond* is one of the most eagerly anticipated games of the adventure genre.

Growing up in Scarborough, Ontario in Britain's Canadian Commonwealth cousin meant a different computing experience for Julia Minamata. There wasn't the clumsy, slow and monochrome 1K of Sinclair's ZX81, instead her home was lavished with the full-colour Commodore' VIC20 home computer, complete with a cassette desk and joystick.

[Julia] We weren't a console household, I imagine because computers were considered educational. My sister and I used word processors for our homework earlier than most kids, laboriously printing out our essays with our dot matrix printer. [...] One of my earliest memories of computers was a suitcase-sized "laptop" with a tiny green monochrome screen that my Dad borrowed from work. That's the first place I played *King's Quest I,* among other things. But that game was the standout. I loved exploring the game world as Sir Graham! Well, actually I was terrified of the troll, the wolf, the moat, and just about everything else, but the game definitely made an impression on me.

The *King's Quest* series [spanning to 8 games in total], and particularly the work of Roberta Williams at Sierra Entertainment pioneered the shape of adventures across the pond that would dominate the genre for well over a decade. *Quest* had a simple plot, beginning with King Daventry's best knight, Sir Graham, as he
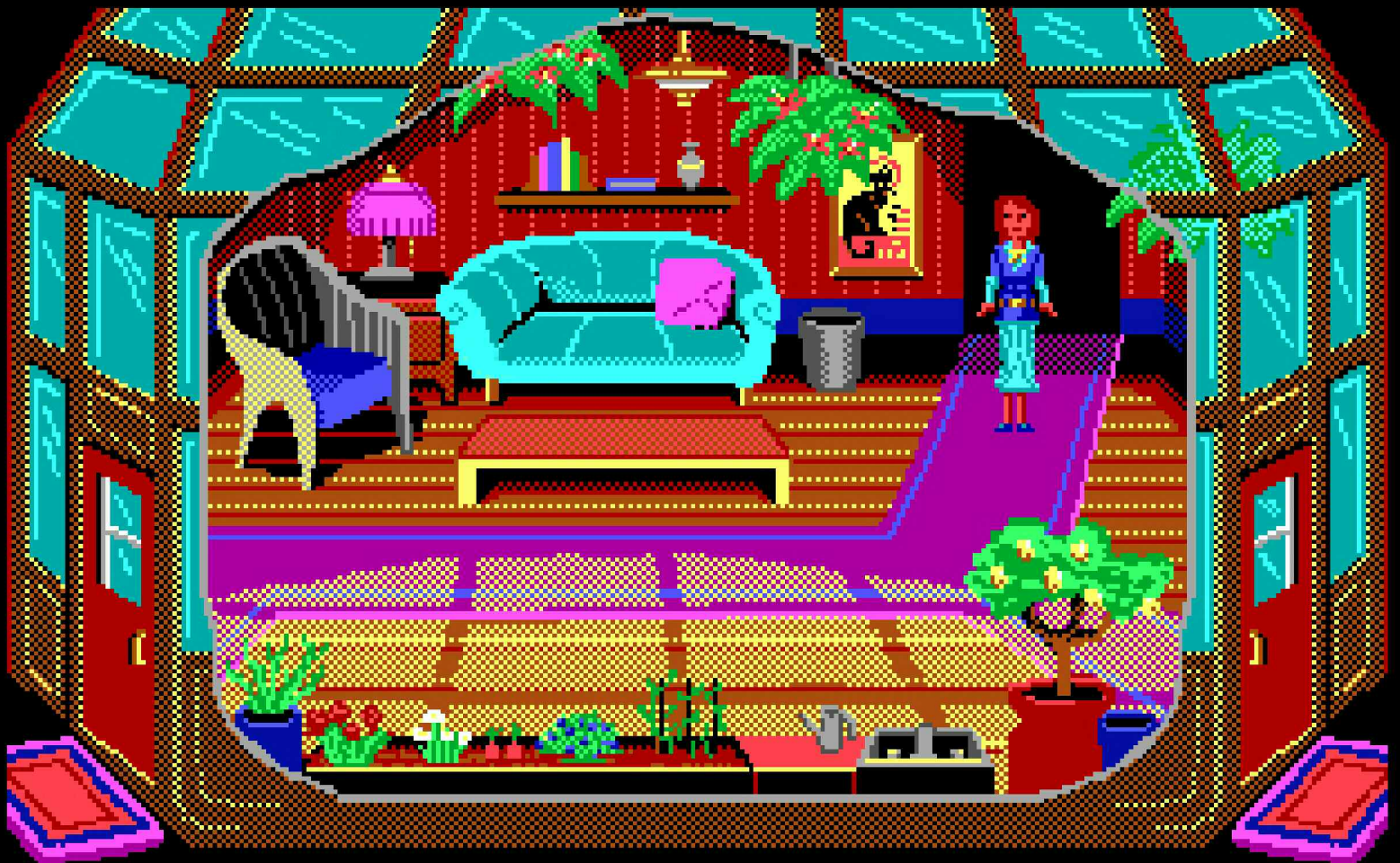
undertook a "quest" to find three legendary treasures which if found would result in his ascent to the throne.

[Julia] The games that really stuck with me were those adventure games! *Quest for Glory 2*, *King's Quest 5*, and *The Dagger of Amon Ra* [...] truly felt like rich and rewarding experiences. Those games were tense, funny, dramatic, and gorgeous to behold. I've always gravitated towards that style. I draw the greatest inspiration from *The Colonel's Bequest*, for game design and its fantastic EGA art. *Quest for Glory 2 & 4* may have been my favourite adventure games to play through, as well as LucasArts' *The Secret of Monkey Island*. These games focused on story, setting, and the characters. Games of other genres at the time weren't narratively satisfying, and they didn't look as good! Or if they did, they certainly didn't let you stand around to enjoy it.

The Sierra games built upon the foundations of traditional text adventures by adding graphics, animations and sounds. The game's visuals were inimitably crude affairs, making as best use of the limited resolution and palettes offered by early graphic processing chips. With the advent of EGA [the Enhanced Graphics Adapter introduced in 1984] offering double the resolution and up to 16 simultaneous colours from the palette, the Sierra titles could truly focus on interactive storytelling, and the series expanded to encompass several different narrative genres, including sci-fi, detective thrillers and murder mysteries.

[Julia] I was a voracious reader and adventure games were the perfect blend of game and storytelling that I enjoyed. I've always preferred games that I can experience at my own pace. I never developed the level of hand-eye coordination to excel at arcade games or shooters, so I never satisfactorily completed any of those. But with the aid of a walkthrough, I could actually experience the stories in adventure games from beginning to end and feel satisfied.

After high school, Julia pursued a career in illustration, graduating from Wexford Collegiate Institute's Special Series Art program into Sheridan College where she attained a Bachelor of Applied Arts, majoring in illustration. Through her passion for art, and the emerging discipline of digital illustration she started to take an interest in the various software tools and techniques available for professional computer-using illustrators. Photoshop was gaining popularity, and by following one tutorial for the drawing package she stumbled upon the technique of creating pixel-perfect artwork, and her creative imagination instantly cast her back to her childhood and love for those EGA classics.

[Julia] [...] The very first thing I created was a character portrait as what might be found in an adventure game. I started to play with different colour palettes. I did a lot of silkscreen printing for my freelance illustrations, so limiting the colour palette of my art comes naturally. Soon after that, I decided to attempt some pixel art using EGA. My first thought was to attempt to recreate the style of the rooms in *The Colonel's Bequest* [an interactive "play" with a diverse cast of characters written by Roberta Williams and published by Sierra On-line in 1989]. I laboured over that first room, but it didn't look right because I didn't have a figure to properly scale the furniture and doorways. I whipped up a prototypical [player sprite], although she didn't have a name at that time. My second attempt at a room was the kitchen [that you can visit in the game] [and] thanks to my little sprite, I was able to build that room much better! It still took me ages, because I was learning how to use the tools and the colour palette. Creating EGA rooms started to become a hobby for me.

The hobby quickly turned into a passion. Unintentionally, Julia had started to create the building blocks of her own adventure by illustrating a collection of locations from her imagination, and she started to consider the storyline that bound them together. She'd only tiptoed on the periphery of computer programming at High School, learning the rudimentary functionality of Java without any

[Opposite] Though Minamata quickly settled on a distinctive graphics style, the two images opposite show the evolution of the conservatory illustrations [from top to bottom] in style and viewport.

formal education on offer. Without being able to code her own adventure from scratch, she needed a game engine that would suit her needs and enable her to bring her vision to life.

[Julia] I just enjoyed building the rooms and decorating them with furnishings, rugs, and wallpaper. I was making a pixel art dollhouse, with no real goal in sight. I even looked at Clue [murder mystery boardgame known as Cluedo in Europe] for inspiration, which is why I included a billiards room and a conservatory! Once I had a few rooms, it seemed natural to make my little sprite walk around in these rooms. I knew about *Adventure Game Studio [AGS]*. It seemed like the perfect engine to use for my purposes. I'd played and watched Let's Plays [videos] of Francisco Gonzalez's and Yahtzee Croshaw's games, and [...] I knew they'd used *AGS*, so I figured I'd give it a shot!

It wasn't until she'd built the game's entire environ, the lodge, that she committed to a coherent storyline. Drawing on her interests in local history and mineralogy, and inspired by *The Colonel's Bequest* and Agatha Christie stories, she based the plot around a fictional town called Crimson and the discovery of a rather large diamond in the area. There's a passing resemblance to *Crimson's* Cluedo roots, as a cavalcade of nefarious characters gather at the lodge on hearing of the valuable gem that's been unearthed. This cast is drawn into a storyline of plot, mystery and intrigue, and in the game players must "explore the lodge and its environs to evaluate the diamond claim, and maybe solve a mystery or two along the way."

[Julia] I wanted the game to have a comforting, nostalgic feel. Not just in the visual style, but in the writing, settings and characters. [...] The name *The Crimson Diamond* sounds like a mystery novel title, which was a big plus. [...] As for the lodge's guests, I created them with the story in mind. A few of the characters are inspired by The Colonel's Bequest: There's a lawyer character, a prickly older woman, and a curmudgeonly old recluse. Nancy Maple herself is inspired by Nancy Drew and Miss Marple, with a Canadian twist!

Nancy Maple is at the centre of the game – she's *The Crimson Diamond's* main protagonist and a character full of personality, charm and wit - not too dissimilar to the game's author.

[Julia] It's funny, I've had people say I look like Nancy, too! [...] . I'm very conscious when I'm writing the descriptions of Nancy's surroundings and of the other characters that the player is seeing these things through Nancy's eyes, and that comes with certain subtle biases on her part. I don't explicitly state what her personality is like, but I'm glad it comes through in the game. Nancy was first created to be the figure I could build the rooms around. She looks like Laura Bow from *The Colonel's Bequest* because I wanted a template for a female figure in EGA. I made sure that the Nancy sprite is visually distinct from Laura Bow. If you put them side by side you'll

see they're actually quite different! It was never my instinct to directly copy anything, which worked out to my benefit as I kept adding art and animations to the project. Nancy remained as she is because by that time I'd built so many assets with her that it made sense. Fortunately, her being a red-headed detective works really well for the title of the game, as well as for the background I wrote for her.

It's a credit to Julia that she's given every character in the game such depth. There's an incredible amount of detail when you scratch away the veneer of *Crimson* and peer under at each of its inhabitants. Nancy has evolved from a set of pixels, first created to correctly size the game's rooms, into an exquisitely detailed EGA red-haired female figure. Her entire back-story is documented [in an ever-expanding old-skool digital game manual], from her place of birth, through her upbringing and to the reason that she's drawn into the story when the diamond is discovered and she's dispatched to investigate.

[Julia] It's been a joy to write the story! I love the research. The more I learn, the more story ideas I get. It feels great to take a lot of my interests and synthesize something new from all the bits I've collected over the years. The geology and history had to ring true. I

wanted the characters to have understandable motivations. For all that to happen, the story had to be grounded in a reality. It was like finding a historical artefact or constructing a court case. I drew on geology and historical precedence to give the game a plausible context. If it didn't make sense to me, it wouldn't make sense to players.

The Colonel's Bequest and *Quest for Glory* [and many others] implemented a hybrid interface of mouse [or cursor-key] movement and text input. It's a style of interaction that wouldn't be seen in mainstream games on British shores until the adoption of 16-bit home computers [that came with a mouse as standard] such as the Atari ST and Commodore Amiga. In *The Crimson Diamond*, Julia has opted to mirror the much-loved titles from her youth and has inherited mouse movement to allow the player explore their surroundings.

[Julia] Players who've played those classics as well as players who are new to the style can recognize a point-and-click movement option. I wanted to make the game approachable for players who have never seen this type of game before. Movement can also be controlled with the cursor keys, another classic style of input. Everyone has their own methods they're most
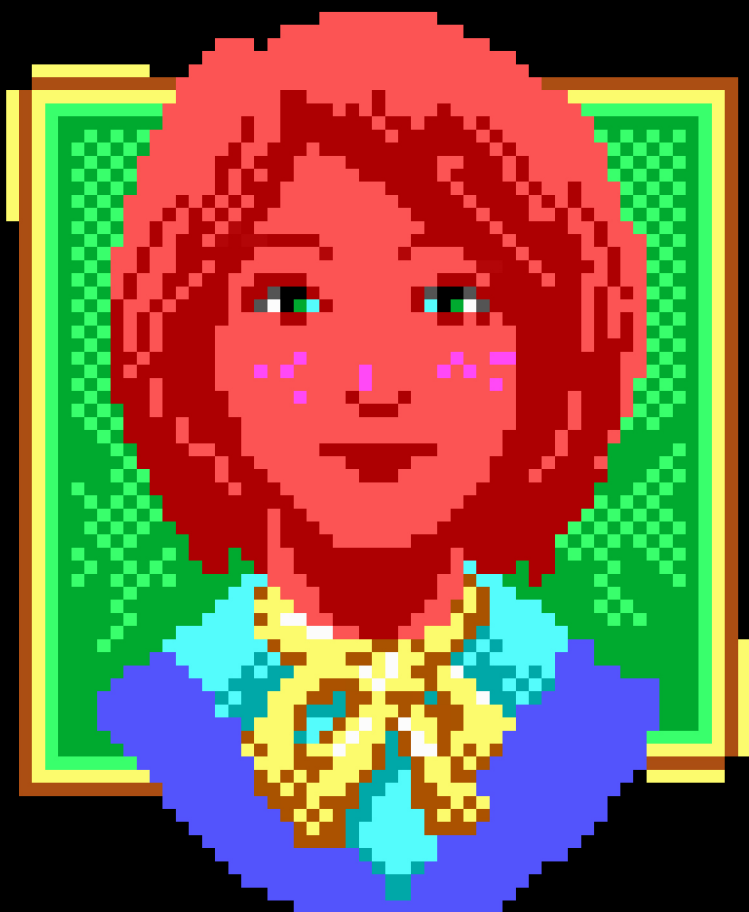
comfortable using, so I try to give choices for input when I can.

Once the player needs to interact with something, they can switch to enter commands via a classic text-based parser and use a range of verb/noun commands, with familiar directions such as ASK, LOOK and GIVE prevalent.

[Julia] [A] text parser is a little challenging to design and program, because I have to try and direct players to the appropriate words to use with the writing and anticipate other actions they might try. But I've sat next to players at shows when they've tried out the text parser interface for the first time and it's incredibly rewarding to see them smile and laugh when the game gives them a response for something they've typed. From my own experience, games with text parser interfaces have almost always felt more immersive. They require greater engagement in what's going on. They appeal to the player's creativity!

The original Sierra games were the first evolutionary step to a full point-and-click interface with no keyboard-based input at all. It had been attempted in LucasArts' first adventure, *Maniac Mansion* on the Commodore 64 and Apple II computer. Developers searched for a way to simplify the text parsing of earlier games or eliminate it all together for machines to use either joystick or mouse. Every text adventure is limited by its vocabulary and the frustration that a player felt if the parser was unable to understand what they were trying to do.

Handling those "challenging" appropriate words is even tougher with character interaction where the player could type in a myriad of conversation combinations. In *Indiana Jones and the Last Crusade: The Adventure Game*, LucasArts overcame that potential banana skin, and the unpredictability of the player speech choices by introducing a sequences of restricted conversation paths, otherwise called Dialog Puzzles by its legendary designer Ron Gilbert.

Gilbert explained in his *Thimbleweed Park* [a classic point-n-click adventure Kickstarted in 2017] blog, "Dialog Puzzles are really nothing more than a list of choices in the form of dialog for the player to say, or more specifically, for the player to make the main character say. You begin a conversation by doing a TALK TO. The main character usually starts off with a line of dialog, then the other character says something, then the player presented with three to five choice of things they can say. You choose one of them and that takes the conversation in a new and you end up with some more dialog choices. The dialog trees are typically only a few levels deep and often return to a top node. Choices you've already made often disappear -but not always."

[Julia] I'm not a fan of conversation trees. The most rewarding games with this type of dialogue are the ones with terrific comedic writing, such as the *Monkey Island* games or *Day of the Tentacle*. With those, I enjoy the set-ups and pay-offs of the jokes. Otherwise, clicking through each branch of a conversation tree can feel rote to me. Text parser dialogue feels more realistic, in that it reflects the real-life need to pay attention to the conversation in order to be able to ask follow-up questions. I've had this feeling when playing Dungeons and Dragons actually. It's a cool feeling, to be engaged in a dialogue where it's up to you to move it along. That being said, I understand that using a text parser for dialogue is inherently challenging, so I don't punish the player for not asking the right questions. Asking pertinent questions rewards the player with insight into the story and the characters. It's not a necessary action unless it's explicitly stated.

Julia estimates that the game will finish with around 6000 lines of text and dialogue. It's a colossal amount, when compared to peer title such as *Kathy Rain* - the indie hit adventure from 2016 by one-man development studio Clifftop Games [aka Joel Staaf Hästö] which only has around 4000 lines. To compliment the text, *Diamond* consists of around 4000 sprites, 69 rooms and 410 individual animation assets.

For a sole developer and her first game, it's a huge undertaking.

[Julia] [...] I tell people I've already broken the first rule of developing a first game, which is to keep the scope small. I learned this a little too late! Once I'd finished designing the game, I discovered I'd committed myself to a project with 7-10 hours of gameplay. [...] I take a lot of inspiration not only from Francisco Gonzalez and Yahtzee Croshaw, but also from David P. Gray, who created the influential *Hugo* trilogy of games. [...] They're all solo indie devs, and they've all been able to produce wonderful, high quality games. I've learned a lot about every aspect of development since I've started this project. I like being the one making the decisions. It gives the game a personal and unified feel, from the writing to the art to the design. The relatively small scale of linear adventure games makes this an achievable goal. It reminds me of manga artists who write, pencil, and ink their stories. There is one voice there, with a certain perspective. I find that really compelling.

Then there's the weight of gender. Roberta Williams has been credited with creating one of the first videogames with a recognisable lead female character – Rosella - in *King's Quest IV: The Perils of Rosella*. In the game, released a year before the appearance of Laura Bow, the player takes on the part of Princess Rosella, daughter of King Graham of Daventry – 'supplanting the role from the former male-oriented character. After being asked about the controversy Roberta told journalist Philip Jong of the Adventure Classic Gaming website, "I [don't] understand [why] the introduction of Rosella [...] [is] a controversy. To me, it seemed natural, and in fact *King's Quest IV* was a much bigger hit than *I*, *II* or *III*. I do feel that *King's Quest IV* was a pivotal game in bringing in more female players. However, in no way did *King's Quest IV* turn off male players. Not at all.". For Minamata, casting Nancy as the lead character was as clear-cut and straight-forward.

[Julia] [It is] not something I explicitly set out to do because the game started as unconnected pixel art rooms, but I think I would've chosen to do so regardless. Nancy's eagerness to travel to northern Ontario to prove herself is somewhat rooted in the sexism she experiences at her job. She'd like to go to university to study mineralogy, but statistically at that time women were very rarely seen in higher education. Alice Wilson was Canada's first female geologist and even with a doctorate in geology she was barred from participating in field work in remote regions because the camps would've required living with men. The only reason Nancy is permitted by her boss to travel to Crimson, Ontario is because the lodge is there, and it's considered civilized - this conversation happens between Nancy and her boss in game's introduction. So naturally, she jumps at the chance! *The Colonel's Bequest*, *Dagger of Amon Ra*, and *King's Quest IV* were the most memorable games for me that had female protagonists. They're definitely inspirations! I've enjoyed and continue to enjoy playing games with male protagonists too, I think the key is having a variety of different kinds of protagonists in games as whole. It's said that reading is an act of empathy, in that readers often find themselves identifying or empathizing with the protagonist. Diverse protagonists in games can have the same benefit, as players are literally walking a mile in someone else's shoes.

Medium writer, Florencia Grattarola estimated that based upon the registration data submitted for *King's Quest,* 35-40% of its players were female. Applying that percentage to the game's sales would indicate that the game had around 200,000 female players in the late 1980s. In 2019, recognising female players, as well as attracting female developers into the industry is as important now as it was then.

Roberta Williams told Wong that "perhaps why you don't see a lot of women in the computer game industry [...] is because, at least in the old days, computer games and computers just weren't the focus of the average woman or girl. [...] Now you could say that was because the games weren't designed with females in mind - which was probably true because the 'boys' were designing them...for themselves!".

As mentioned before, Julia is creating Diamond using the *Adventure Game Studio*, an incredibly flexible tool originally created by Chris Jones back in 1997. Jones aimed to develop a simple utility that could
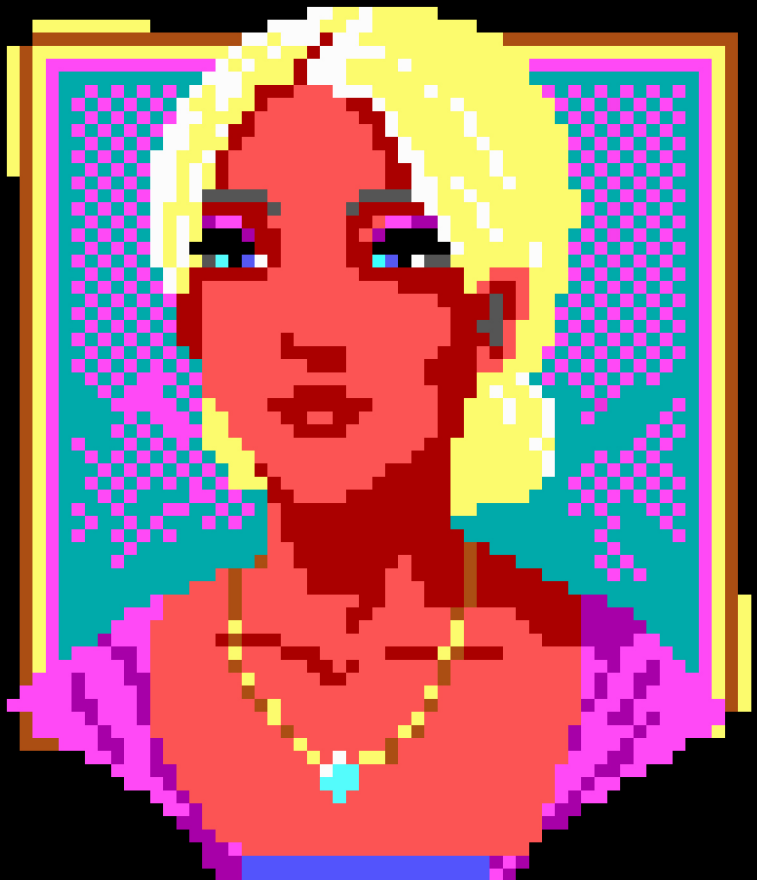
[Above and Opposite] *The Crimson Diamond's* hybrid user-interface is demonstrated [above] by using the mouse or cursor-keys for movement, and a traditional text parser [opposite] to issue

be used to produce games that would mimic the original Sierra On-Line interfaces, specially those showcased in *Space Quest IV: Roger Wilco* and the *Time Rippers*. Since then the tool has evolved beyond recognition and has been used by many authors to pen hugely successful commercial adventures, most notably Dave Gilberts' Wadjet Eye studio and their *Blackwell* series.

[Julia] I chose the *Adventure Game Studio* because I'd played full-fledged adventure games made with it, particularly Francisco Gonzalez's *Ben Jordan* games and Yahtzee Croshaw's *Chzo Mythos* series. I could see what was possible with the engine. When I tried the engine for myself, I could immediately see that it was purpose-built for making this style of game, which was key for me because I was not a programmer by any means. [...] I ascribe any perceived programming limitations to my own limitations as a programmer and not the engine. I've been able to implement everything I've wanted to, so far!

Minamata is pushing the text parsing boundaries of *AGS*. Several *AGS* forum posts discuss how difficult it is to implement that style of interface, even though it is baked into the engine, so she's worked hard with the friendly community to circumvent those issues.

Her lack of formal training in programming has been a barrier, but thankfully she's finding it easy to integrate the many wonderful pieces of artwork into the game, by configuring the *Studio* to use the exact hex values for the EGA palette and transforming them into interactive locations.

[Julia] [...] I've been creating the art 100% directly as EGA from the beginning, so what I envision is pretty much what I can output. [...] I draw directly into *Photoshop* with a stylus or mouse. I've been experimenting with MediBang *Paint*, which is a pixel art app for iPad.

That's a great option when I'm on the go. [...] As for animation, I use *Photoshop* for that too. [...] I create the animations by creating separate *Photoshop* layers, saving those separate layers as GIFs, then importing them into *AGS*. Background art is created the same way.

The homage to those Sierra games doesn't end with the UI and the charming EGA graphics. In *Diamond*, there's additional and subtle touches of brilliance and attention to detail that could easily be overlooked. Back in the days of hard drives measured in megabytes, and games being distributed on many expensive floppy disks of limited capacity, developers had to balance audio-visual assets [high resolution and high-quality sound and images were exceptionally expensive assets to produce and were large in size] with game content – much like they did on 8-bit systems.

In *Diamond*, Minamata has used clever cut-scenes and animations with a limited amount of frames to give a sense of nostalgia and added early-era Adlib/Soundblaster sound effects to the game [doors opening, toilets flushing] using *Beepbox*.

[Julia] Limiting the frames is handy because it's less work! I'm satisfied with the effect of the animations as they are, so I'm pleased to hear you think it's a desirable outcome. Enough to be effective, I'm happy with that!

The in-game music comes from the re-interpreted song sheets of Canadian musician Barry Taylor and original works by Dan Policar and Pablo Romero. There's a smattering of MIDI-esque music, in addition to the Adlib/Soundblaster spot sound effects that make the whole experience more rounded and immersive, and reminiscent of those 90s heydays.

[Julia] Barry Taylor's Great Canadian Tunebook is an invaluable resource. [...] The MIDI arrangements are based on public domain Canadian folk songs. I have two musicians working with me to do new versions of these folk songs, as well as some original music. Dan Policar is interested in recreating the Roland MT-32 sound of those classic games, he even borrowed an MT-100 from a friend. [...] Dan is

a Grammy-nominated musician who tours with Sean Paul as his keyboardist. He's also currently working on Brenda and John Romero's upcoming game *Empire of Sin*, [...] and he loves adventure games! My other musician Pablo Alberto Romero is a professional opera singer, he's conservatory-trained musician with a master's degree in vocal performance. They've both started to contributing music to the game and I love everything I'm hearing. I'm incredibly fortunate that they both believe in my project and will work with me.

The demo has been released on itch.io and on Julia's own dedicated website. The content is constantly evolving and during the past 18 months she's been on a whirlwind tour visiting several expos including WordPlay and EGLX, both in Toronto.

[Julia] Aside from WordPlay and EGLX, I helped volunteer at Lori and Corey Cole's Transolar Games booth at PAX West. The panel was at PAX West too, and it was a real treat! I even got to meet Douglas Herring, the artist of the *Colonel's Bequest*, over that weekend. I never imagined I'd meet so many Sierra alumni, ever. As a whole, Sierra has inspired me with a sense of adventure and exploration, gentle humour and fun. More specifically, the Coles' *Quest for Glory* series taught me about a sense of morality that had room for grey areas and wasn't preachy. I also love the day/night cycle on the *Quest for Glory* games, which is something I included in *The Crimson Diamond*. The *Colonel's Bequest's* art is my strongest visual inspiration in terms of setting and the style of the EGA art. Doug's mastery of light and shadow and subtle dithering make it a standout game for me. I have *The Colonel's Bequest* installed on my computer and I like to load it up and walk around in that old plantation house and explore its grounds. It is beautiful.

In November 2019 she'll be attending AdventureX, the UK's only convention dedicated to narrative-driven gaming. It's a conference with a growing reputation and boasts a line-up of over 35 games and speakers. Held in the British Library in London it brings together

developers and gamers with a passion for interactive storytelling.

[Julia] I'm eager to see how the game is received in London! I've heard nothing but good things about AdventureX. It's a well-established event focused on narrative games, so I'm expecting attendees to be familiar with the style and hopefully excited about it! EGA text parser games haven't really been seen for a few decades. Perhaps attendees will see *The Crimson Diamond* as a long-awaited return to form.

As well as the invite from AdventureX, *Diamond* has attracted plenty of media attention in Europe. The UK and Germany contribute a high percentage of web traffic to the game's site and the first piece of online publicity was via German adventure site Adventure Corner.

The feedback coming from various adventure forums and fan sites is invaluable to Minamata's way of evolving *Diamond*. Getting the game into player's hands at Expos has been a valuable mechanism for balancing the game's puzzles and pacing.

[Julia] I particularly enjoy showing the game at conventions because I get to watch real-time playtesting. This is so valuable because I'm

Talk to Kimi_
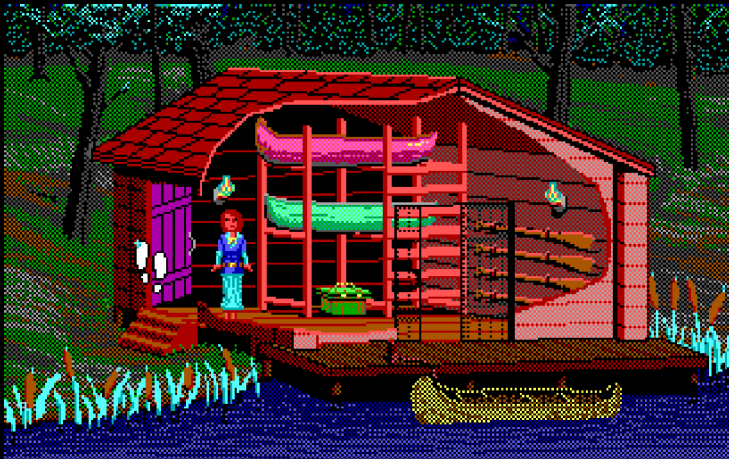
[Above] A neat cut-away effect is applied when Nancy Drew goes inside buildings.

working by myself and I can no longer experience the game for the first time. I lose sight of whether the game is interesting or entertaining after testing sections dozens of times! Most of the tweaks have been slight issues with the graphics not being informative enough, such as a hallway that didn't look like it could be walked down or a pair of closed doors that some players couldn't discern. I've since fixed those! One consideration that was brought to me was a player who mentioned that typing can be difficult for some people, so I implemented some parser shortcuts to reduce the amount of typing needed for some of the most common commands. "O D" equals "open door", for instance. Some of the Sierra games have these types of shortcuts too, so this change was both a quality of life improvement and a tip of the hat to nostalgia!

There's no definitive release date as yet. A tentative "late next year" is usually given.

[Julia] It's my first project and I'm doing it on my own, so it's anyone's guess when it'll be done.

We can look forward to the storyline expanding to incorporate alternative endings depending on the player's experiences and choices throughout the game. Julia is even considering having an ending like *Bequest*, where the final sequences of the game will provide clues to the player's chosen path.

It's a hope that it will break what is traditionally viewed as a linear experience and add to the replay value. At the time of writing, the demo version is up to its 13th revision and feedback continues to pour in via itch and other social mediums.

[Julia] The reaction has been very positive! I love seeing people's eyes

light up when they see the art. Most of them recognize the style of art from games of their childhoods, but I was pleasantly surprised to see the game catch the eyes of people in their twenties or even younger! The smiles of nostalgia warm my heart. It was really cool to watch parents point to the screen and tell their kids that this is a style of game they used to play growing up. It was even cooler to see the kids learn how to use the text parser and play the game! Not only did this remind me of my own childhood, but it also gave me hope that a newer generation could be interested in *The Crimson Diamond*. Most of the game has remained unchanged. I've tweaked the artwork a little but it's largely unaltered from its original incarnation. The story details may have changed here and there over time, which is why I created the introductory sequence to solidify some of those ideas. I realized I wouldn't commit to just one version of the introduction until I actually built it!

If there's one thing for sure, with the game's glorious visuals it would make a perfect candidate for a Kickstarter or other crowd funder to draw resources into it's development. The cash could help Minamata bring the game to a wider audience and enhance it, perhaps with a talkie version or even a physical release in a classic 80s big cardboard box.

[Julia] [...] *The Crimson Diamond* is all self-funded, I'm currently using my savings. The budget is pretty tight and travelling to show the game is expensive. I'm releasing the game on Windows PCs. If the sales justify porting, I'd love to do that. But I lack the technical expertise to do the porting and AGS isn't really good for seamlessly porting to other platforms. I think the game could work on phones, as a friend of mine has already shown me how it works surprisingly well already. [...] As for big box release, it'd be amazing to do one, Kickstarting that could be an option but it's very easy to lose a lot of time and money with those campaigns. I'm almost considering going even older school, with a photocopied manual and floppy disk-style USB in a zip-loc bag! It's another case of a "if the sales justify it" possibility.

So, it's watch this space for now, and make sure you sign-up and read the Crimson Gazette, a periodic email with development updates and other adventure chat [with copious features about geology].

[Julia] I started the Gazette after I attended a [marketing] workshop in Toronto hosted by Gabby DaRienzo. She said it's important to regularly promote and share development news, I figured a good way to do that is to do a monthly update. I wanted the update to have some flavour to it, which is why I decided to give it an old timey newspaper spin. I love little bits of trivia, so the geology facts seemed to be a perfect addition that fits in with the game's theme. It's actually been a handy tool for me to refer back to as it reminds me of what I've done and when. It typically takes me a day to write up a Gazette and then send it out to e-mail subscribers. After that, I copy-paste it into a devblog on [the website] where all the back issues can be read.

And as for a sequel? Minamata hopes to spend some time developing her C# programming skills to enable her to delve deeper into the workings of *AGS* and to customise it for a potential *Crimson Diamond* follow-up.

[Julia] [...] I think a sequel will happen regardless of how well *The Crimson Diamond* sells. It would just be longer in development as I do other things and maybe make some money in other ways before coming back to it. I already have a germ of an idea that I've shared with a few people, they think it could be a great continuation of the story! Another of my plans following release is to create my own text parser adventure game template, so the next game isn't as much of building the different functions and code as it is about doing the creative, content-based stuff.

Download and play from itch.io, and donate to the game's ongoing development via:

http://www.thecrimsondiamond.com
https://juliaminamata.itch.io/the-crimson-diamond-demo

DESERT ISLAND DUNGEONS

HMS Crimson Diamond captain **Julia Minamata** is the castaway, all alone with a rather large gemstone, a single power socket and five text adventures for company.

I'm going to choose all text parser games, there are plenty of classics! I could easily double up on *Quest for Glory* and pick the first and second games of the series, ditto almost anything from *Zork,* or other Infocom offerings, and the *Spellcasting* series, but I wanted to have a broad range of writers to enjoy.

I'd say *The Colonel's Bequest, Quest for Glory 2: Trial by Fire, Beyond Zork: The Coconut of Quendor, Spellcasting 301: Spring Break*, and *Starship Titanic*.

The *Colonel's Bequest* because of the art and the setting. It's beautiful. It's my main creative inspiration for my game and I don't think I'd get tired of looking at it.

Quest for Glory 2 because not only is it EGA-gorgeous, but there is so much story and gameplay there and the replay value is strong.

Beyond Zork is an inspired adventure game with some rpg elements in it, and I never did get around to finishing it! Brian Moriarty's writing is incredible in it. I was tempted to pick *Zork Zero*, but my next game selection is already written by Steve Meretzky.

Spellcasting 301 was published by Legend and I'm actually not that familiar with the series or any Legend Entertainment releases, but Steve Meretzky is a terrific writer with a great track record. I'm keen to try Legend's text parser interface.

I want to bring a couple games that I haven't played before, that I can trust to be fantastic experiences. The second game I'd pick that I'd never played before is *Starship Titanic,* written by Douglas Adams. I love the Hitchhiker's Guide to the Galaxy books and the game also has a stunning Art Deco aesthetic so I feel pretty comfortable with picking it with no previous experience!

THE ART OF
SHAUN McCLURE

Shaun McClure has created artwork for a variety of companies, but his 8-bit work for adventure publisher Zenobi and simulation specialists, D&H Games and Cult Software, are perhaps his most recognised pieces.

Dr. Jekyll and Mr. Hyde

Shaun McClure grew up on a diet of Binatone *Pong* games before receiving his first computer in 1982, a Sinclair ZX81. He was fascinated with creating artwork, and originally wanted to pursue a career in illustration. He became more and more interested in creating art using a computer as the technology evolved allowing for higher resolutions and more colours that his original monochrome machine. He painstakingly plotted images by hand, before switching to use *Melbourne Draw*, a utility written by *Sherlock* creator Phillip Mitchell.

[Shaun] *Melbourne Draw's* huge advantage was that you could bring up a character grid, so you could work around the attribute clash by using that extensively, and the zoom function was brilliant. It also didn't make you use a joystick - unlike a lot of the others. Trust me, you cannot draw using a joystick!

How did you approach colour or attribute clash on the Spectrum? Was it a challenge and did you relish working via a medium that offered such restrictions in resolution and colours?

[Shaun] It was one of those things that put a lot of people off using it. I got really good at working around it, and it gives you a lot of kudos, so I got to like it. It made me look good!

Did you work by tracing images or using images as sources for graphics? Can you tell me more about your techniques?

[Shaun] Typically I would draw something on some clear acetate, and then sellotape this to my TV set. [I'd] then keep my head really still and have one eye closed so I could trace under it with my cursor. It took forever, but it was a good [and accurate] way of recreating a large drawing.

You created a demo tape of graphic screens and sent them off to several companies offering your graphics work for free! Which companies did you send to?

[Shaun] Everyone but only the small indie adventure companies replied - working for free helped. I was always in the adventure columns in magazines as a result!

You produced many sets of graphics for several of John Wilson's Zenobi adventures – how did that process go?

[Shaun] I got a brief description - I can barely remember but one sentence usually "Elf" - something along those lines, but he was aiming for a generic group of characters - giant, elf, er donkey - that sort of thing. The interesting bits were the things he made them do in the game, so they could be as I wanted them within reason I guess. I think he only wanted a couple of changes once I sent the first draft ones over, so that was good.

You also worked with Cult and several others. Did you build up a look and feel for these screens for each company? For the football based ones did you have an early version of Spectrum "clip-art" of players and themes to drop in, and did you use this approach for adventures?

[Shaun] No and there wasn't a way that you could do that anyway - not on a practical level. What I used to do for the football games is that I built up a library of actual photos from newspapers and so on, that I could trace onto acetate using the method mentioned previously. I suppose the standard pictures that you get in newspapers seem to have a very same-y looking composition for the most part, and so that comes over into the loading screens. I think I cheated on a few, and flipped them and gave them new hairstyles and kits when I was a bit pressed for time!

How long on average would a screen take to create?

[Shaun] Around 4 hours each.

After you got your foot in the door with offering freebies, was the resultant commerical work well paid?

[Shaun] No - it was about £30 a screen. But I often had about 5 a week to do. It was a lot of money for someone my age.
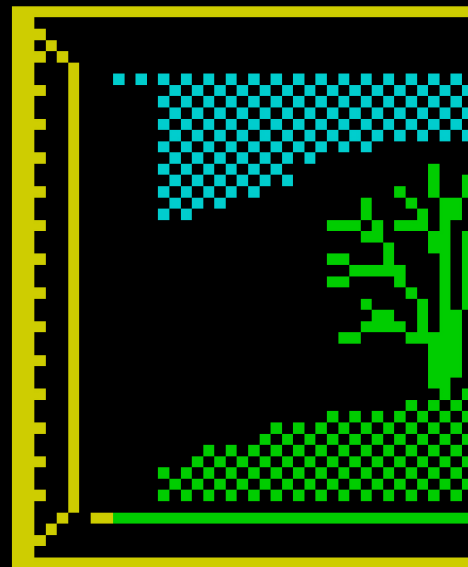
Were you working freelance during your time creating these screens?

[Shaun] [It was a] mixture - I had the job at Wiseowl Software too during part of my time at Cult.

Who were Wise Owl Software? How did the job offer come to you? Where were they based, can you tell me more about them?

[Shaun] They were a really shit company basically, but they were local, and they were working on a lot of conversions for Ocean and Gremlin. But it was a good place to learn how to do the grunt work in games that people don't realise happens - map blocks and so on. It was also my first taste of animation. I was predictably crap.

One of my favourite screens of yours is *Dr Jekyll & Mr Hyde* by the Essential Myth. Was this relationship with other adventure companies, such as The Guild fostered by your relationship with Zenobi?

[Shaun] No again, it was just my free artwork being exploited by the indie companies. Part of the deal was that they mentioned me to the press, and it was a good way of building up a portfolio.

From your adventure line-up which is your most and least favourite piece of artwork?

[Shaun] I think my *Fuddo and Slam* and *Bulbo* stuff for Zenobi is my favourite, as is *Alien Research Centre* [see Excalibur] as a game in total too - certainly the best of the three I made with Ian [Smith] on a number of levels.

[My] least favourite is my *Double Agent* loading screen - for Tartan Software. Its utter shite. it was literally one of my first loading screens though! I bet you're gonna print it now aren't you?

For more of Shaun's work, visit the ZX Art website:

https://zxart.ee/eng/authors/s/shaun-g-mcclure
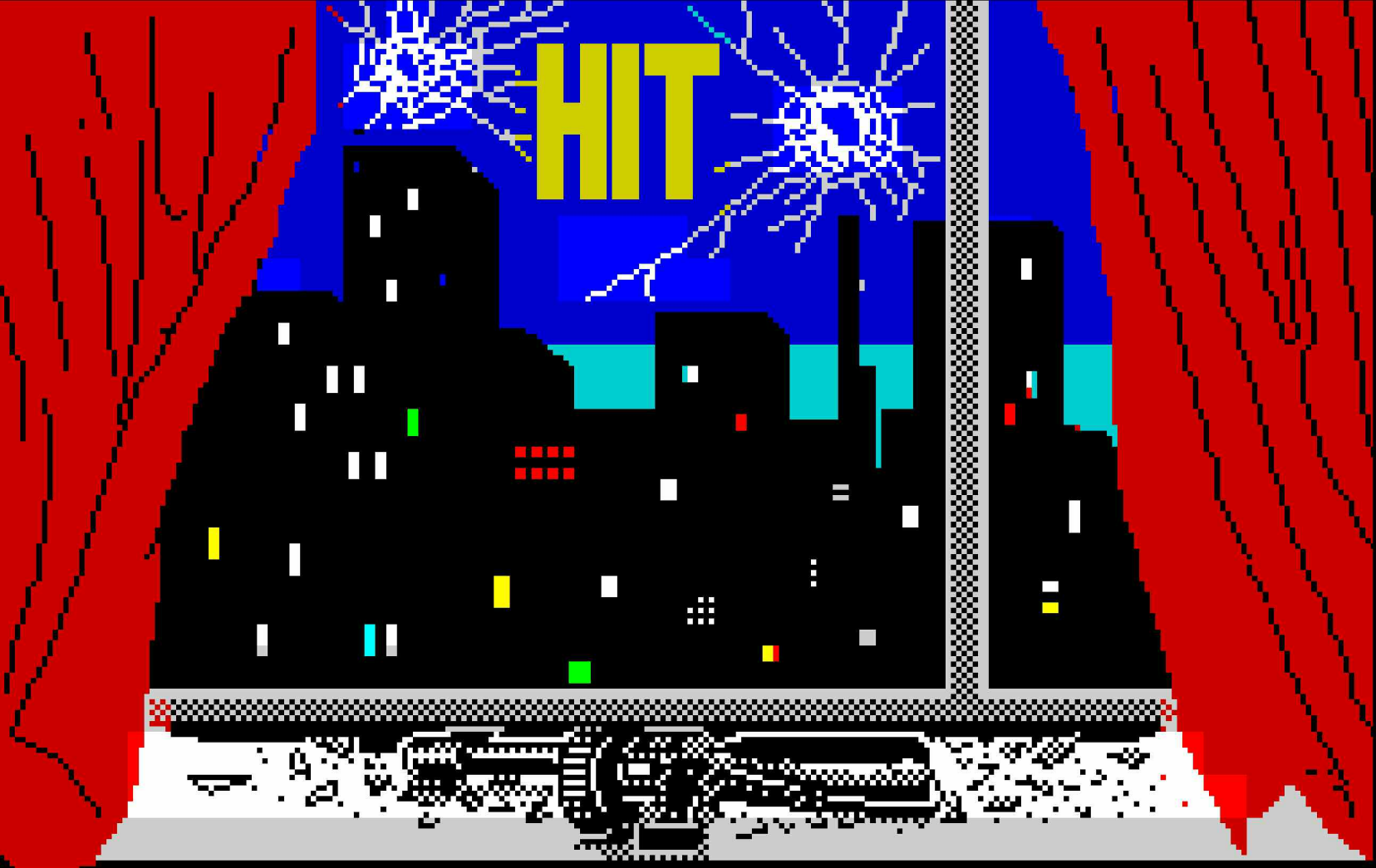
Game: Hit
Format: ZX Spectrum
Publisher: Zenobi Software
Release Date: 1989

The Dark Tower

Staff of Power

Double Agent

22

Home Sweet Home

Man About The House

Black Tower

1994

SGM

Civil Service
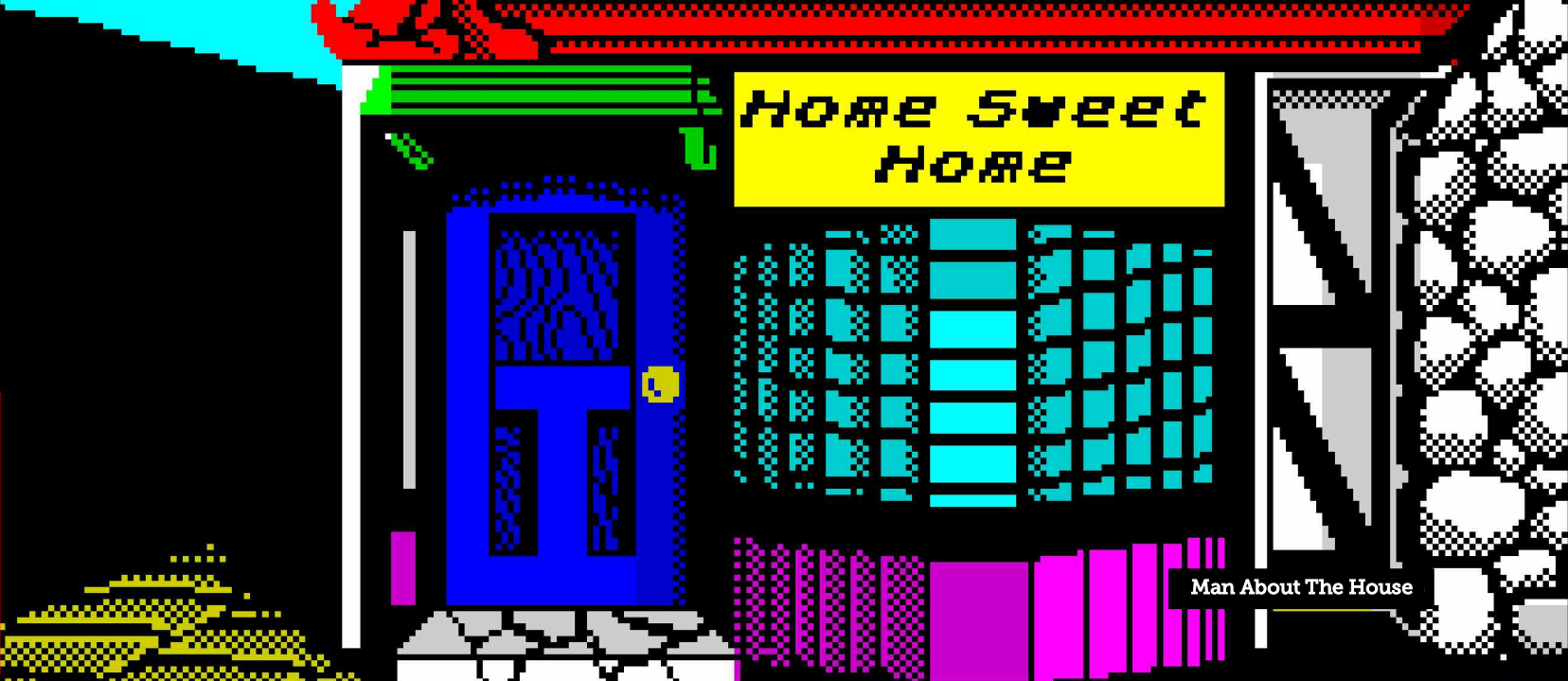
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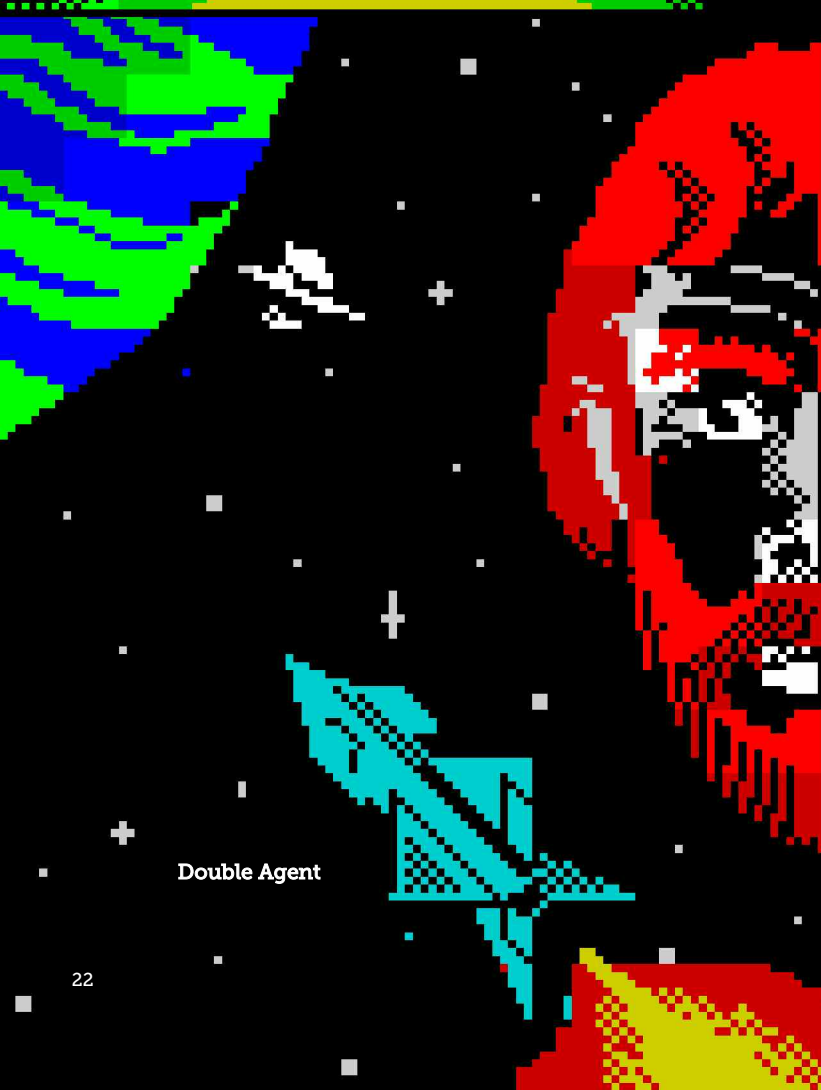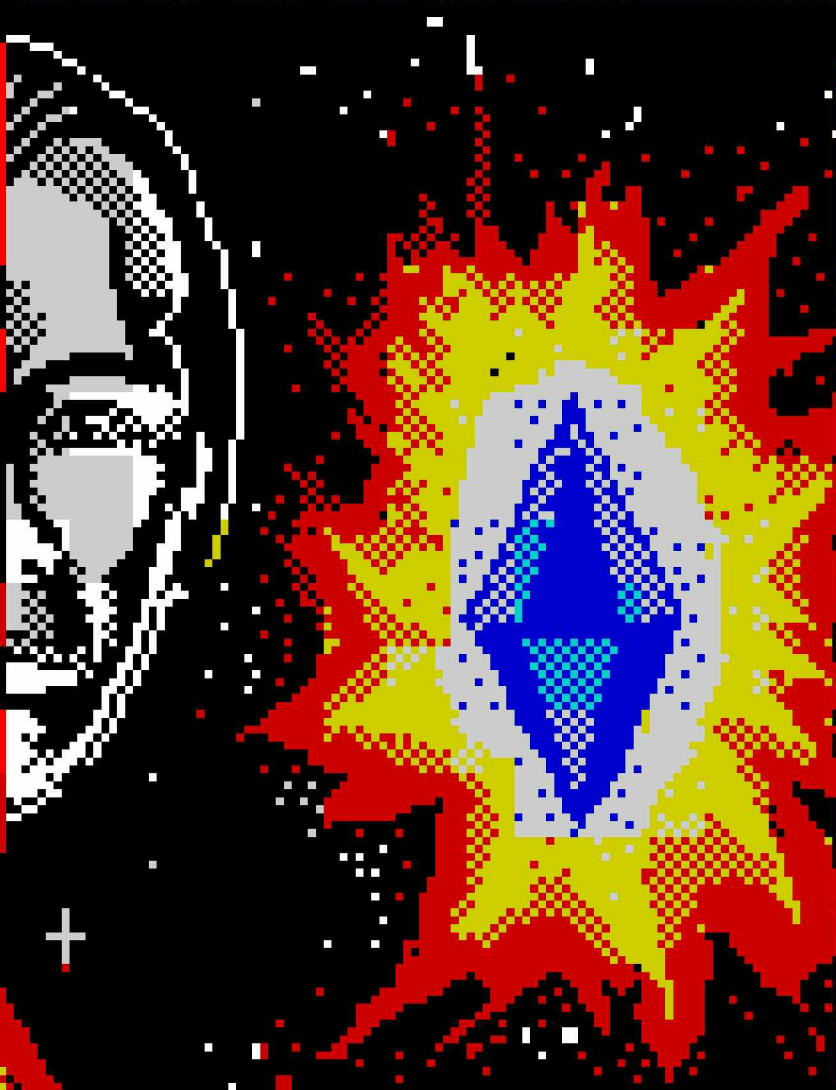
A.R.C.

BY
IAN & TOM SMITH

AN
'INTERACTIVE-GRAPHIC'
ADVENTURE
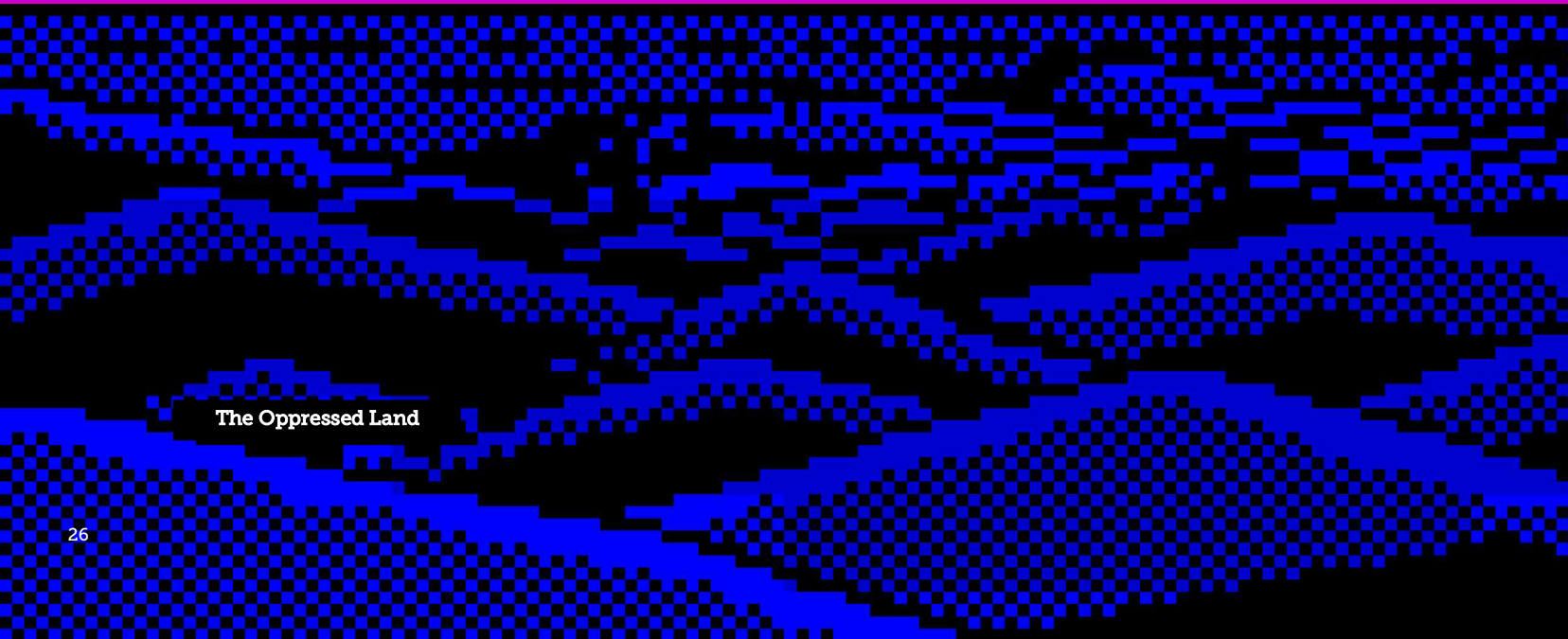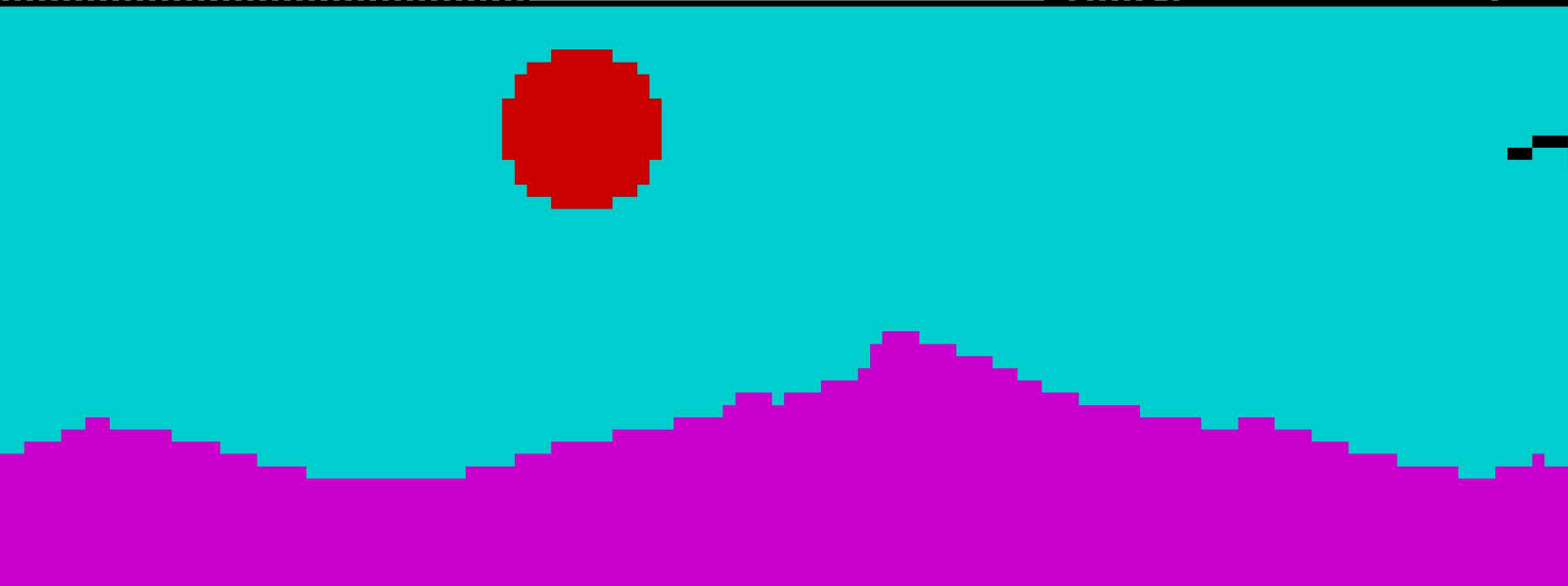
GRAPHICS BY SHAUN McCLURE

ZENOBI Software '89

Game: Alien Research Centre
Format: ZX Spectrum
Publisher: Zenobi Software
Release Date: 1990

The Weaver of Her Dreams

The Oppressed Land

The Taxman Cometh

JOHN BLYTHE

John Blythe is a veteran of the games industry, having worked for iconic British luminary Gremlin Interactive, as well as the publishing behemoths Infogrames and Electronic Arts. After a career spanning 30+ years, and a raft of AAA titles he's returning as hobbyist indie label Rucksack Games creating 8-bit text adventures.

John's first computer was the BBC Micro's lesser powered sibling, the Acorn Electron. His light-bulb moment came after typing in a basic art editing program for the machine, and realising that he wanted to pursue a future in making digital art, and a career being part of the creative process behind computer games. One of the first adventures he played was *Sphinx Adventure* from Acornsoft, bundled with the retail version of the home micro.

[John] [...] I fell in love with the format straight away. As a kid it was great to solve those puzzles and it really made you work for the reward, something I think kids nowadays don't really get from modern games sadly. One of the next adventures that I played was *Twin Kingdom Valley* [see Issue 01] on the Electron and I was truly blown away, because I didn't think it was possible to do graphics and a text rich adventure on that machine. [It was] incredible, and my artist side was itching to do something like that. Let me stress I am not great at adventures - I struggle to solve them - that's my defence, plus I was only 13 [or] 14 so not hugely experienced. Still, I loved playing them [and] I remember playing lots of the Scott Adams [and Brian Howarth] adventures like *Pulsar 7*, *Perseus & Andromeda* and *Ten Little Indians*.

The teenage John started mapping out his own adventures, attempting to create his own games using a primitive grasp of BASIC and the rudimentary graphics commands that the simple language
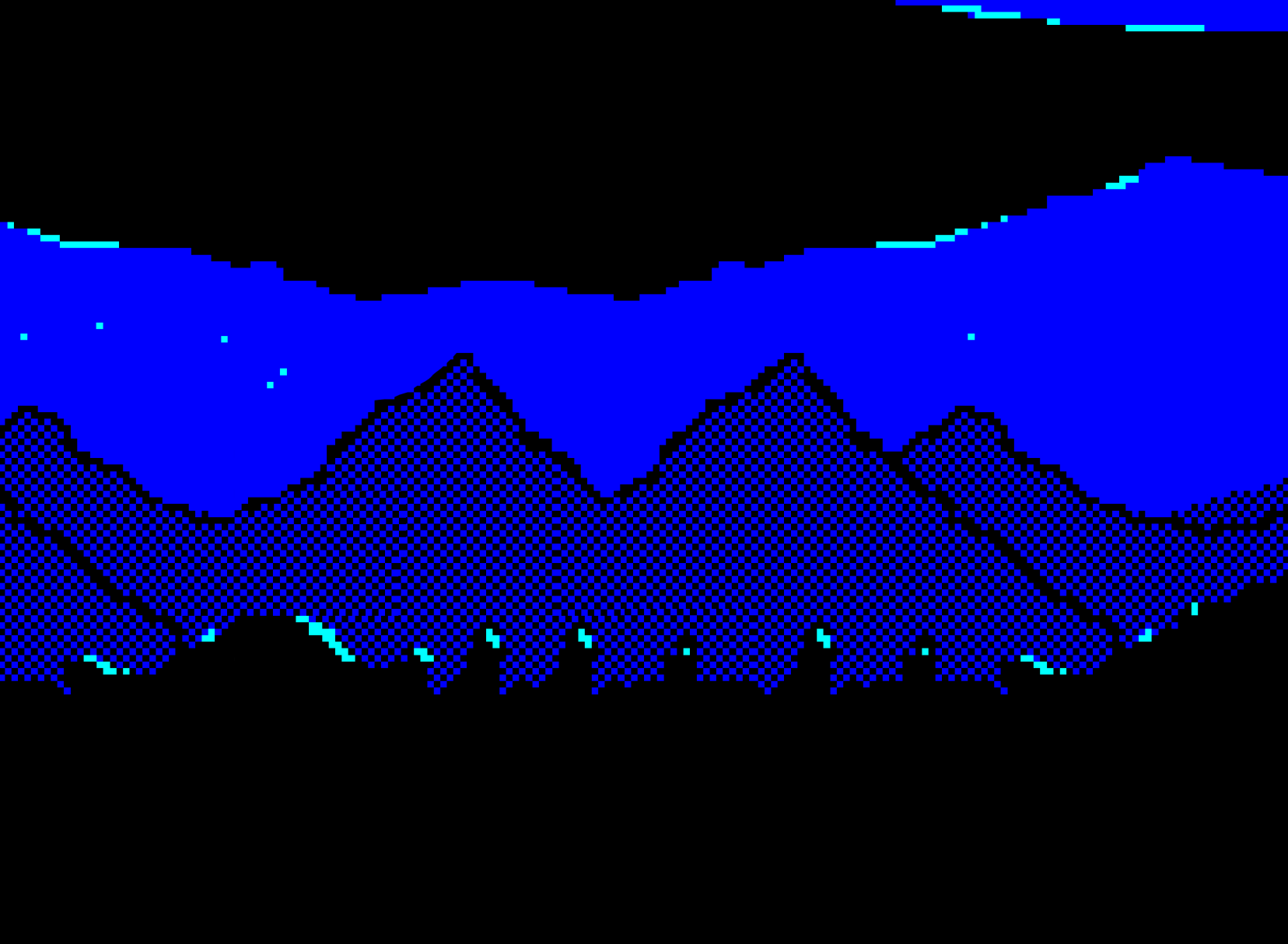
supported. As with most kids, he lost interest in coding when new games to play started to arrive, leaving a raft of unfinished titles to obscurity. Over 30 years later he has returned to the genre he loves, creating indie label Rucksack Games as the moniker for his endeavours.

[John] [...] I needed a faux development label. I just thought what do you take on an adventure in modern day parlance – a Rucksack is essential - so I went with Rucksack Games. [...] I was only intending to do adventure games on the BBC/Electron for some retro fun, but that expanded to doing ZX Spectrum games too via the *Arcade Game Designer*.

Rucksack's first text adventure was *The Darkness of Raven Wood*. It's a dark, and foreboding Victorian horror, as the player finds himself embroiled in the mysterious happenings in the village of the game's title. The main character's responded to a call for help from old school friend Raynard, who after moving to the village to take over his recently deceased father's Blacksmith business has uncovered a sinister series of events. There are missing children, a disappearing priest, and rumours of strange and foul creatures roaming the nearby woods.

[John] I've always loved horror movies and particularly the old Hammer and Universal stuff. Things like Dracula and Frankenstein and Curse of the Werewolf etc. I like the time period too for [that] kind of movie, so I set about creating the adventure [...] with a suitably mysterious but simple story to it. My plan was to do a trilogy set in and around Raven Wood. Not sure I'll ever see that through, but

never say never. The next would be called *The Mystery of Raven Wood* and the last *The Curse of Raven Wood*. We'll see - it depends on whether I can find the time and inspiration to do them.

Take one glance at the screenshots for *Raven Wood* and it's instantly noticeable that the game hasn't been developed using an off-the-shelf utility such as *The Quill* or *The Graphic Adventure Creator*, both of which were available for the Acorn Electron and BBC Micro.

[John] [It's] purely written in BASIC. I learnt a lot of routines from articles printed in old magazines like Acorn Electron User and such like. I also had some routines from INPUT magazine from many years ago. I had several books from back then too one in particular was Write Your Own Adventure Programs by Les Howarth. My engine wasn't particularly powerful, [as] I didn't really have any compression routines for the text for instance, but what I did do was try to maximise the memory available and tried to be creative with how the program worked. I knew that I wanted to keep the game in the same vein as the Scott Adams style adventures in that is was just simple Verb/Noun entry and no complicated multi-word parser system.

Both the BBC and Electron are notoriously restrictive for game developers. Depending on the graphics mode that a game used, the working memory on an unexpanded BBC Micro could be reduced to as little as 12K. For a graphical adventure such as *Raven*, the challenge was coming up with a technical solution to balance high resolution and colourful visuals with plentiful text.

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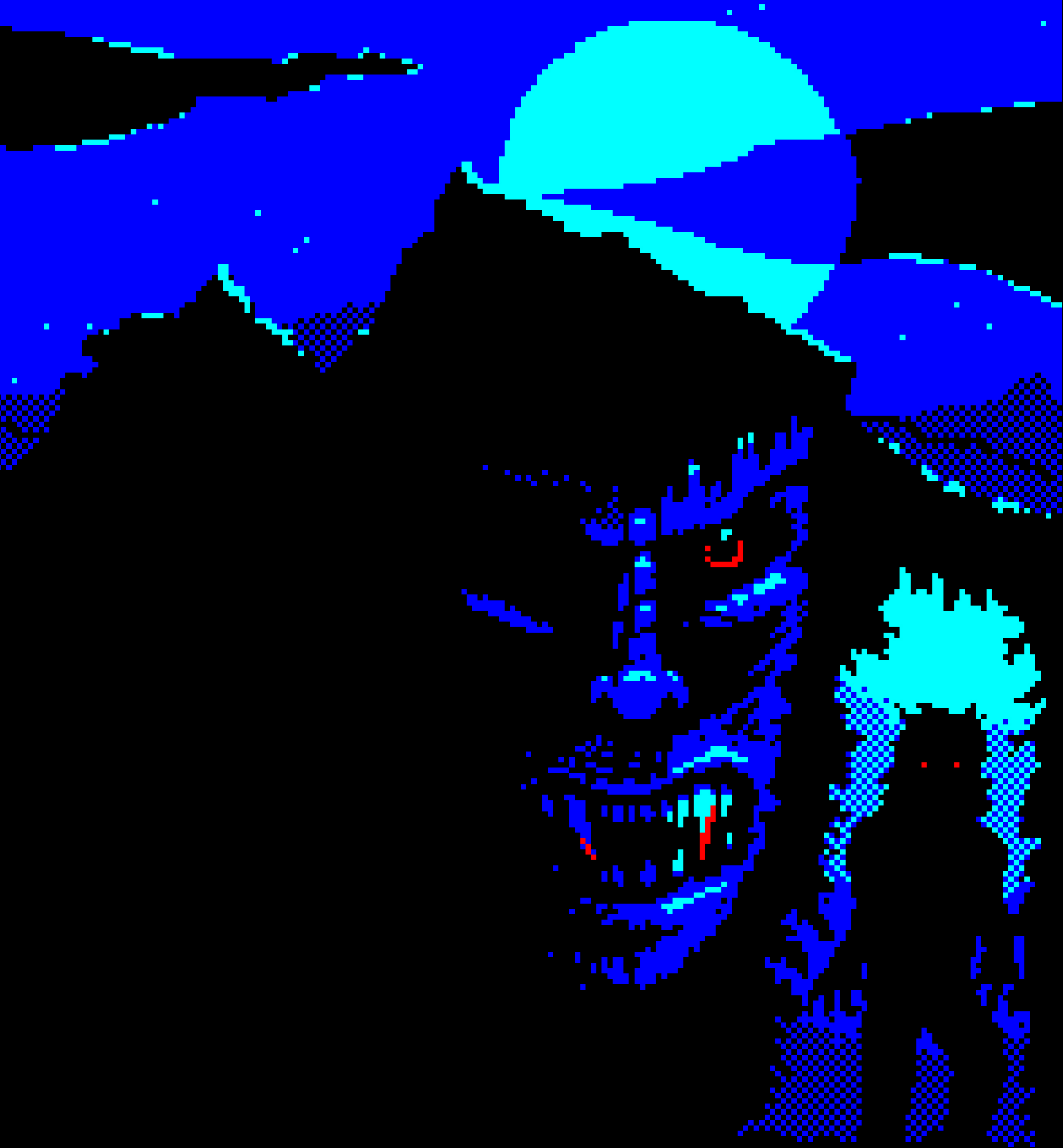
[John] The limitations of the platform are one of the great things I love about it. [...] The first thing I did was off-load the text descriptions. Having those in memory as well as in the code would just kill memory. I opted to create a data file with all the text descriptions, objects etc. in it and then just load that directly into the variables, rather than hold the text in the code as well.

Commercial developers for the Acorn machines, such as Level 9, also opted for a similar system. Towards the end of the 80s they moved away from cassette-based, text-only games and introduced graphic adventures that only floppy drives could support. For the Austin brothers, the solution was to have one disk that contained the adventure data, and a second disk (or second side to a disk) that contained illustrations.

[John] Because this was going to be a disk-only game [...] I opted to split the adventure into two parts. [...] There were some limitations such as the BBC doesn't allow for more than 32 files on a disc, so that severely hampered me, given the programs, data file and the location graphics it was a challenge to fit them in. The program itself filled the BBC's 32K [of RAM] on both sections [and] towards the end I was getting regular 'Out of Memory' messages which required cutting bits of text here and there to fit it in. Later on, I did get help from the BBC community who helped me with compression routines for the graphics, which allowed me to get it down from a Double-sided Disc to a Single-sided Disc format.

John has made several interesting design choices for *Raven's* engine, such as a screen refresh after each command, rather than a continuously scrolling parser response, and the aforementioned limitation of a simple verb/noun entry.

[John] I wanted the graphics to stay on-screen at all times if possible. Maybe I was just being a bit vain! The verb/noun command was partly because I love the simplicity of it and it makes it a bit easier and quicker to get the command in. Plus, in terms of the parser it was simpler to program too [and] took up less memory. I just like it as a tradition of adventure games as well.

The game's location texts act as the inspiration for its illustrations. John uses a graphics tablet and *Photoshop*, configured to use a limited palette, and sketches by hand. Once the drawing is complete, he switches to a third-party tool to convert the image into a suitable format for the BBC.

[John] It took time for sure, but I enjoyed it massively. [...] I did want the death sequences illustrated, which again is a challenge given the limited file system of the BBC Micro. I knew I didn't want a simple "The Zombie killed you... you are dead!" message, I definitely wanted to see the monster. So, I hope it is something relatively unique for a BBC/Electron adventure.

The bespoke adventure engine and hand-drawn illustrations really make a difference to the playing experience of *Raven*, and it feels like a professional commercial release. There was no temptation to use one of the aforementioned tools from Gilsoft and Incentive, though only Sean Ellis' utility would have provided John with the ability to add his beloved graphics.

[John] [...] I will [use *The Quill*] in the future if I decide to do a purely text adventure, but I do love my graphics though. I remember using *The Quill* way, way back in my Electron days, but typically got distracted and eventually never went back to it. For a bigger adventure if text only, I would probably go for one of these packages as they have some nice compression systems for the text which means some meaty games could be done.

Another nice touch in *Raven* is the custom font. It's a small change, that really gives the game a different ambiance, and one that's often overlooked, or under considered when creating an adventure.

[John] [...] This was a necessary need on my part. I remember seeing in an old Electron User article, a routine to create half size text in Mode 5. Now this is essential for this game as the font is huge in Mode 5 on the BBC/Electron. Text descriptions would have been massive and ugly and hard to read ordinarily. [...] [The routine] was

originally written by Robin Nixon - so thanks to him where ever he may be. [It's also] why I couldn't allow the screen to scroll either, because it messed up the display routine for the font! [...] I do think a change in font adds to, or helps give the game some character in most cases for sure.

Another charming inclusion the assorted, non-playable characters [NPCs] that roam the village and other locations of the game. After launch of *Raven* to the public, the Werewolf in particular [which appears in the second party of the game] did attract some criticism, since it was seemingly able to kill the player at random.

[John] Well I wanted some element of danger and panic. The Werewolf was a mechanic to keep the players moving. It would only attack if you stayed to enter a command that wasn't a direction. You could just jump a location and come back and more than likely it would have gone. It's also limited to a few locations, it doesn't follow you to the Manor, [and] it is just in and around the woods in Part 2. Also, it would only be a threat if it was actually in that location. The 'noises' you might hear are not a threat. It was this whole way to make the player feel uneasy and panicky. Admittedly some found it irritating. I was just trying to capture that 'chased' feeling you get in the movies with some creature on your tail all the time.

John's original design included more roaming characters, inspired by *Twin Kingdom Valley* and Trevor Hall's appetite for roaming Orcs, Goblins and Giants. John's original aspirations for the character abilities were similar to Hall's and to other games such as *The Hobbit*, giving them the capabilities of the player. Unfortunately, due to the restrictions of the hardware the implementation in *Raven Wood* remains fairly limited.

[John] [...] I just ran out of memory. The Stranger was there to give clues. His responses were different depending on where you were in the adventure. He would have been expanded on in future sequels - his identity revealed - well that was my plan back then. He would have popped up in the second section too to offer nuggets of info, but again memory just didn't allow it.

Thankfully, some bytes were free to put in a regular feature in many indie adventures – a selection of Easter Eggs waiting for the player to discover if they explore the game beyond the traditional and expected perimeters. In *Raven*, there's one magical *Colossal* surprise awaiting discovery.

[John] [...] There would have been others but memory stopped me from doing them. The *Colossal* Easter Egg was a nice addition and served as a quick travel mechanic too, it works in the second section as well I think. [...] I'm struggling to remember now if it was in the second part, I'm sure it was. As for others I would have put them in, but as always.... memory limitations.

There's so much to enjoy with the game. The prose is well written, and beautifully presented, and the puzzles are straightforward enough, aided with John's determination to retain their simple construction. There's a little bit of wandering around, and making sure that conversations take place in the correct order, but as with most adventures it's trial and error. Akin to *Knight Orc* [see Issue 06] and many other Beeb games with illustrations, it's the colourful graphics of *Raven Wood*, given extra vibrancy by the BBC's palette that are the star of the show – and the access to a digital disk image version of the game [using emulation] means that they aren't too sluggish to be loaded and displayed.

[John] I would say my favourite by far are the graphics. Very few if any BBC text adventures feature such detailed graphics. I liked the puzzles, I think they worked well, especially things like the casket puzzle which is a multi-element puzzle. The ending is also similar with multiple commands, in a specific order, with specific items needed to win. [...] I didn't like [...] [the] memory limitations [that] do have an annoying way of getting in the way. They stopped me from adding more layers to NPCs and the puzzles. As for in the adventure itself, I do regret putting the standard [...] maze in. They do annoy me hence why I added the *Colossal* Easter Egg in as a get out. I probably wouldn't do mazes like that again.
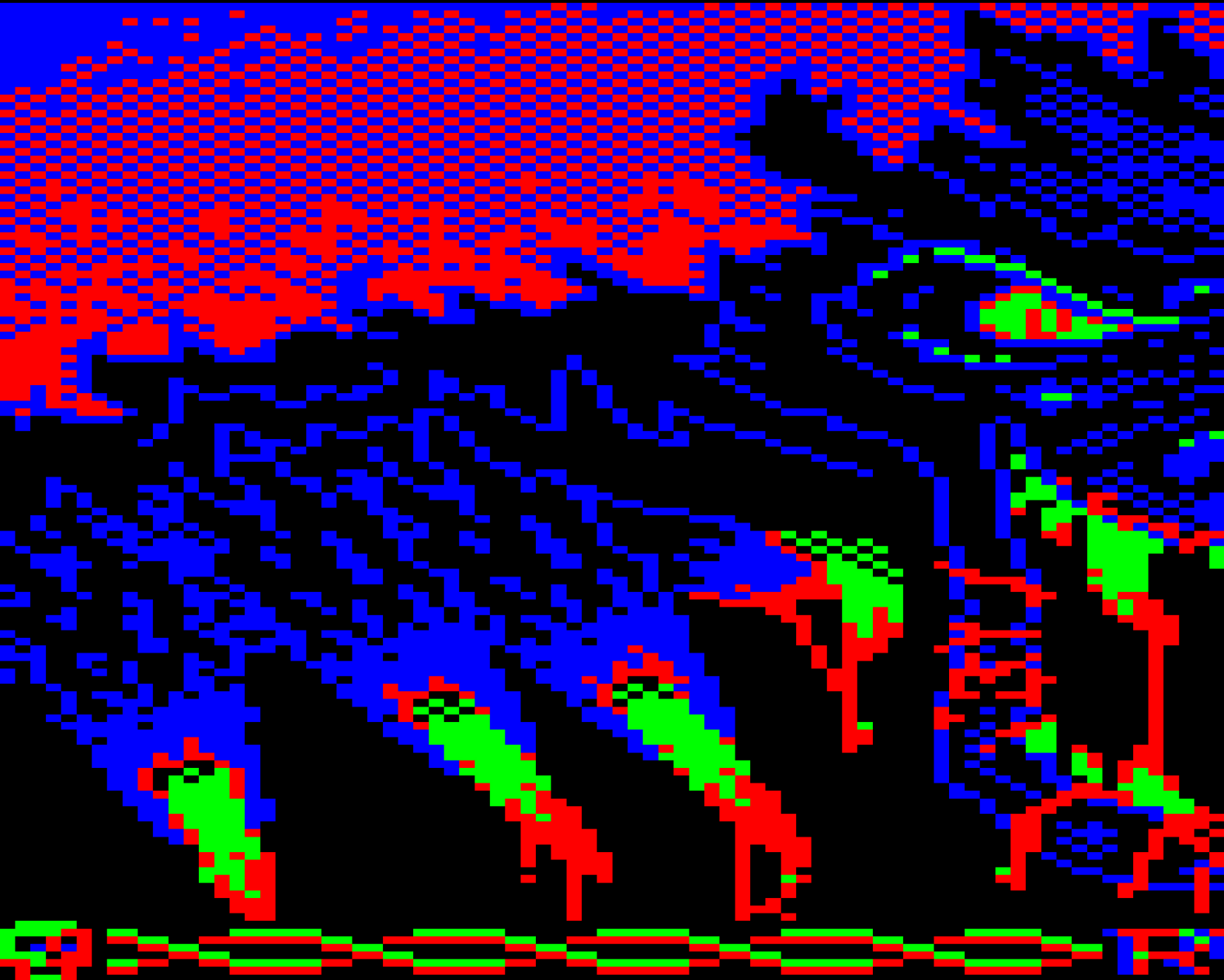
The game took around 6 months to develop, before being released to the community in December 2016. It quickly gained popularity with players and John updated his website with an exquisite mockup of a physical version of the game, the plot, hints and tips and a beautiful hand-drawn map. John's inlay artwork, featured on his website and physical inlay mockup are much in the style of the classic Level 9 branded boxes.

[John] [...] In adventure terms the Level 9 box design was to me in a similar vein as the Ultimate game boxes were for action games, except for adventures. They produced some classic adventures and were seen to be at the top of their game. Presentation wise I loved the box design. I liked the continuity from box to box which you get a lot nowadays but back then not so much. Felt special in a way, felt like a quality product, I guess.

For the month following the game's release, John continued to fix

bugs and tweak and update the game engine with the help of several members of the thriving Acorn community on the Stardot forums.

[John] Several users helped me optimise the graphics with compression routines to fit the game onto a Single-Sided Disc image. [...] Up to then I had it on a Double-Sided Disc image which when using an emulator isn't a problem really, but some people wanted to play it on actually hardware, so it was easier for them on a Single-Sided Disc. Plus the routines helped to load the graphics quicker and uncompress them faster too - which was a nice bonus.

The game works on an unexpanded BBC and Electron, something that John planned for from the start. The two machines offered a similar programming experience, apart from a mix of available graphics modes, but it would have been heresy for him to ignore the machine that meant so much to him as a child.
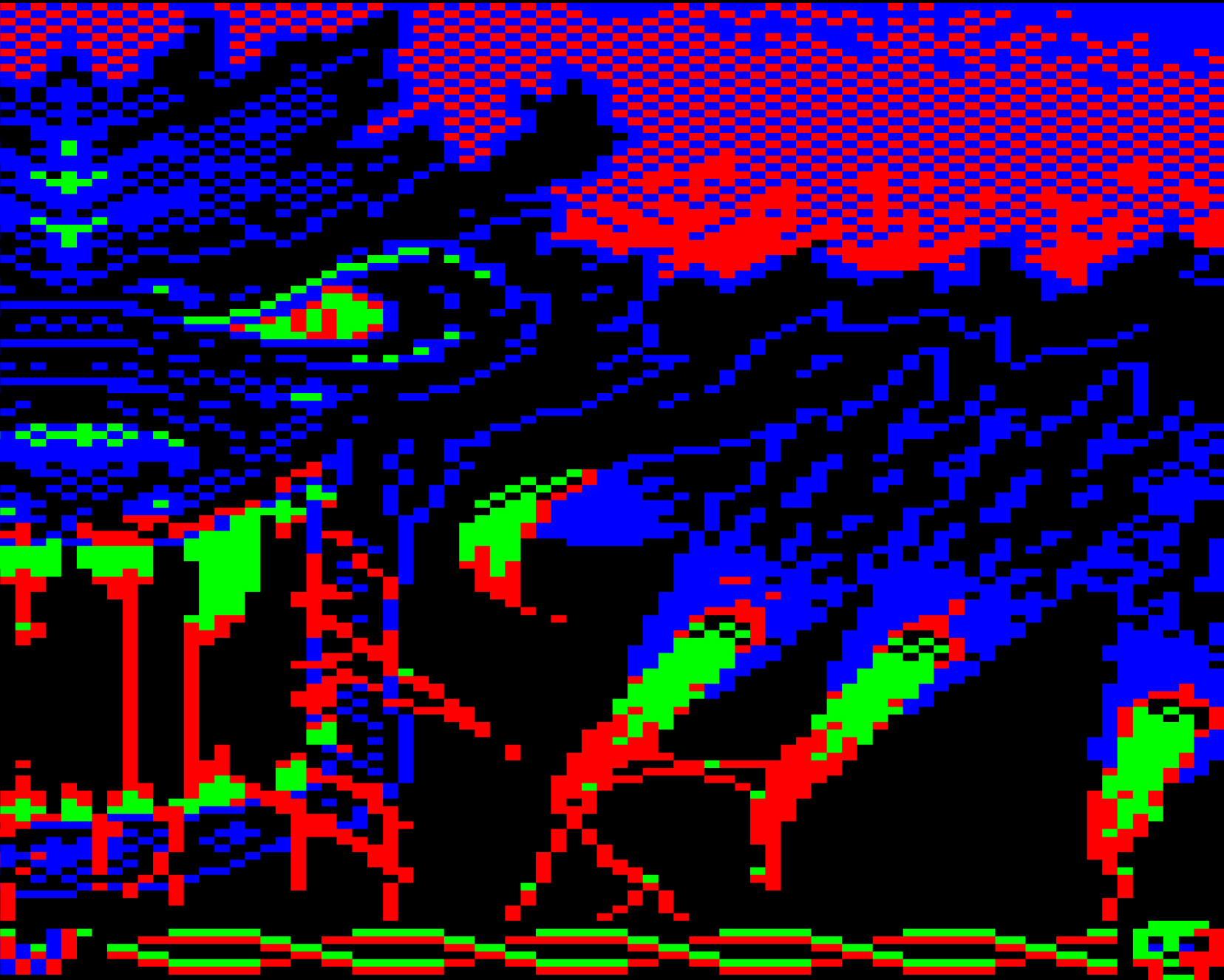
[John] [...] I was [...] determined that this would run on the Electron. I loved the machine and it deserved to get a quality adventure on it, just like its BBC big brother. As I was coding in BASIC there was no difference between the two. Especially when in MODE 5 which is available on both machines. MODE 7 for instance isn't available on the Electron and adventures written in this mode tend to utilise its extra memory and hence they don't get converted to the Electron sadly.

John's most recent enterprise is an update to Les Howarth's *Micro Adventure*, otherwise known as *Micro Puzzle* – a game especially written for Usborne Publishing's Weird Computer Games book [see Line By Line Labyrinths] and part of their Games Listing series.

[John] I had the Usborne books [in] my childhood and spent many an hour coding the games from them. [I] learnt a lot too from those listings. *Micro Puzzle* was a pretty big listing and I don't think I ever

coded that in. [It] seemed like a nice little project to do between other things, [but it] turned out to be a bigger job than expected.

Howarth was a stalwart of Usborne's publications, having co-written several other books, and being the turn-to author when it came to text adventure content. John had picked up the book, after lurking around on a well-known auctions site, and decided to purchase the titles that had made such a difference to him as a kid.

[John] [...] 97% of the game is Les Howarth's original code straight from the book. The parser [and] the puzzles are all his - I simply wanted to give it a modern day lick of paint to show how even these simple BASIC programs can now look great. It's part of my *Type-In BASIC* series. I plan to do other little listings too with added presentation.

It's a modest assessment of the wonders that John has done to the

A PRINCELY PRODUCTION

Not content with creating his own games, John is an active member of Bitshifters, a "collective of like-minded creative and developers with a shared love of BBC Microcomputers and 8-bit retro computing in general."

He has contributed graphics to one of their most renowned projects, a BBC Master port of Jordan Mechner's iconic Apple II game, *The Prince of Persia*. Taking the original converted Apple pixel sprites, John remastered every single one to make best use of the BBC's lower, but more colourful resolutions.

The result is quite stunning, and the BBC version can be downloaded, along with the rest of John's creations including *The Darkness of Raven Wood*, *Micro Adventure* and his Spectrum AGD games from the Rucksack Games website:

https://www.rucksackgames.co.uk

game. He's enhanced the text descriptions, making them longer and more descriptive, and there's a host of puzzle tweaks, parser improvements and graphical additions to what was a very, very crude adventure.

[John] [I've] added the mouse and cat graphics to the location pictures too, I suppose that's a little nod to *Raven Wood's* creature graphics. [I've] added a title and menu screen [and] even some sound and a very basic tune as well. I tweaked some of the puzzles - for instance I changed the password code, written on some paper that you find, to a simple riddle rather than giving you the code itself. I also changed some of the long-winded stuff like having to type 'REMOTE-CONTROL' to just 'REMOTE' instead. [I] also updated things like the Computer Terminal to a Laptop, which weirdly still has a physical lock on it.

Instead of *Raven's* full-colour graphics, *Micro Puzzle* has a series of high-resolution monochrome illustrations making use of the different display modes available on the Acorn hardware.

[John] Well I wanted to have some higher-resolution graphics this time around. Plus, a change is as good as a rest they say. It does make it distinct from *Raven Wood's* style too. It also fitted easier with the code, which uses Mode 6 on the Electron, and this uses Mode 4 which are both a similar resolution, one is text only the other has graphics, seemed like a natural fit.

It should be the first in a long line of modernising old type-ins or BASIC text adventures and sprinkling them with a dash of Rucksack Games glitter. Howarth's adventures are prime candidates, and he

has several other adventures that could be considered, including *Haunted House* from his Usborne favourite dedicated to adventures.

[John] [...] Hopefully I can do other listings and add extra graphics and presentation to give them some flashiness they deserve. They won't necessarily be adventures though. They are planned to be just little fun creative projects to do as a hobby. Well that's the plan, unless I'm doing something more complex like an *AGD* project for instance.

So, what's next? John has hinted at completing his own enhanced version of *The Hobbit*, *Raven Wood* sequels, and the prospect of more in the type-in series.

[John] Ah, well that's the 64-million-dollar question isn't it. I have so many 'things' on at any one time its difficult to decide. *The Hobbit* is something I'd like to go back to. I did map some of it out and did some preliminary graphics for a couple of locations. Again that would be a big undertaking for sure. I would love to do the sequel to *Raven Wood* [*The Mystery of Raven Wood*], but I have no story for that and [have] done no planning of any kind. There will be another adventure for sure at some point, I won't ever give up doing them. [...]There will be more BBC/Electron games at some point for sure. I also would like to dabble with *Adventuron* – which has been around a [while] now. Sounds easy to use and could be a great way to create adventures.

He's continuing to produce ZX Spectrum games, some of which are for sale via various physical retro publishers, and he's working on a sequel to one of his Spectrum *AGD* games called *Foggy's Quest II – The Lost Treasures of Omk*. Being one of the original backers of the Spectrum Next project, the arrival of the new hardware also excites him.

[John] [...] I believe a version of *The Professional Adventure Writing System* is coming to it, so, *Raven Wood (ZX NEXT)* may be? I'll add it to my list of 'things I might get to do'.

DESERT ISLAND DUNGEONS

Sailing away from the horrors of Raven Wood, **John Blythe's** ship runs aground on a desert island. He's all alone with just five text adventures to while away the time.

Twin Kingdom Valley – BBC Micro/Electron. The graphics are nice and simple, its big, not too difficult and its a classic. I love the NPC stuff in it too. Its got all the adventure tropes as well; Witches, Dragons, Dwarves, Mountains, Rivers, Mazes, Woods, Deserts... I mean it has everything.

The Lost Crystal – BBC/Electron. Again the graphics. Except this time they're a great step up from *TKV*. It looks great and its a pretty complex adventure. It's multi-tape load on the Electron but man its worth it. Some great NPC interaction too. I never finished it so having on an island might mean I actual do finish it.

Village of Lost Souls – BBC. This is a big adventure and it has great long descriptive text for the locations. Complex puzzles and a great parser that handles complex commands. Another I never finished but it was a great world it created.

Perseus and Andromeda – BBC/Electron. It's a simple small adventure by Brian Howarth. I love the Greek mythology though. Its not the best adventure but its a guilty pleasure. I remember it from when I was a kid, had fond memories of it. Not played it since, might try to catch up with it again.

The Hobbit – ZX Spectrum. It's a classic. The Spectrum had the graphics too, which the BBC annoyingly didn't get. Sad times. I'm a massive Lord of the Rings fan and a Hobbit fan so this is right up my street. Classic locations and nice puzzles, superb.

MUSHROOM HUNT

In September 2019, **Ben Jones'** delightful adventure *Mushroom Hunt* was the standout winner of the inaugural *Adventuron* text adventure game creation jam. Its warmhearted story of a youngster collecting mushrooms for his grandmother against a backdrop of delightful and eyecatching ASCII graphics won over judges and players alike.

Format: Adventuron
Developer: Ben Jones [aka Polyducks]
Release Date: October 2019
Download From: https://polyducks.itch.io/mushroom-hunt

Ben Jones is a web developer living in the North of England. In his day job he codes front-ends for a men's fashion website, and for fun he creates textmode art, pixel art and creates JavaScript games and tools.

As a youngster he didn't have access to a computer in his home, but instead enjoyed unsuitable games of *Duke Nukem 3D* with his neighbour on their PC. At school he quickly picked up a passion for art and creativity, breaking the barriers of Microsoft's *Powerpoint* by using it to create animations.

[Ben] I'd make these huge animations that were so large that the file would crash out before the film was finished. I discovered you could use the click event to jump between slides, and I used that to make a duck-hunt style game. Then I got into *Flash* and started making all sorts of things. In my 20s I got into MUDs and text-based games. It was fascinating how these systems could include flying, gravity, poison, complicated economies and other people, but it was all rendered in text. More recently, I visited a teletext convention in the South of England where I met Raquel Meyers,

Steve "Horsenburger" Horsley, Jellica Jake and Dan Farrimond. I'd already messed around with textmode art for a while before that, but they embraced me and taught me the restrictions of the teletext platform. I feel like that is when I flourished — to be accepted by these greats of the format.

In August 2019 Ben tested his skills and entered the very first Adventuron Game Jam, a competition that challenged wannabe adventure developers to take a bare-bones text adventure and adapt it into a game of their own.

Jones' jam entry, *Mushroom Hunt*, centers around the exploits of a young child who lives with their elderly grandmother in her woodland cottage. Granny is cooking tea, a delicious mushroom stew, and asks her young relative to forage in the surrounding forest for ingredients. Aside from the narrative, and its beautiful prose, the attraction of *Hunt* lies in its exquisite ASCII character graphics, and the approach Jones has taken to the game's puzzles. Instead of a linear chain of events, the player is free to roam the cottage and it's environs and is encouraged to delve as deep as

possible into the scenery; exploring and examining everything to find an array of clever Easter Eggs and expressive text. To complete the game, the player must find the aforementioned mushrooms, but they have to pay particular attention to their descriptions and pick the correct ones, otherwise they could end up serving up a stomach-churning surprise for Grandma.

What was your motivation to enter the Adventuron Cave Jam?

[Ben] On one hand, I wanted to make a finished game – the jams are often the best way to approach this, because it gives you a fixed time limit to develop something. You know that when you reach the deadline you've got to do the big reveal whether it's feature complete or not. On the other hand, I wanted some experience using someone else's text game engine to understand how to put together documentation for my own engine. I've been making a (very basic) text game engine in JavaScript, and Chris was really helpful in understanding the process. Adventuron has a really strong tutorial designed for children aged 8 and up, as well as full documentation on all its features. Even the engine has autocomplete with written notes on the functionality. I couldn't have chosen a better engine to study.

You describe the game as a "narrative exploration" game? What do you mean?

[Ben] The game is made up of two parts – the simple, baseline aspect of finding objects through the puzzle of finding nouns to look at – and the underlying story of abandonment and learning to love a remote member of family. I had initially used the two words "narrative exploration" game as a throw-away pairing of words because the story was about narrative and exploration. [...] Thinking about it now, it's very much about exploring the narrative by digging through the environment to discover more pieces of the puzzle.

What is the inspiration behind the narrative to the game, and the hunt for mushrooms?

[Ben] I live in a densely populated urban area – but near where I live there's a small pathway that meanders along the side of a stream behind the houses. It's overgrown, and recently there's been huge swathes of mushrooms appearing in the grass after rain.

I've wanted to write about a nature walk for a long time, describing the plants and nature I see all too seldomly.
I've also read "The Wood: The Life & Times of Cockshutt Wood by John Lewis-Stempel" recently. His deeply descriptive scenes about the wood were massively impactful. Mushroom Hunt is a catharsis of relaxation.

Does the game evoke childhood memories for you? Did you have a grandma that liked mushroom stew, and did you have a bad experience of getting stung by bees?

[Ben] As a child, I remember going on holiday to France – to a rental holiday home in a valley. Behind the house was a wood which I went exploring with my dad and sister. On our walk, we found a shallow cave under a tangle of branches with a rabbit skull inside. It was really exciting to find new places and discover hidden parts of nature which are just slightly off the beaten path. I must admit my knowledge of mycology is very limited.

Did you take any inspirations from other text adventure games?

[Ben] I really like *A Dark Room* [minimalist text adventure by Michael Townsend] for its simplicity. It ties down the user interaction into just a few commands.

I'm a big fan of the narrative works of Andrew Plotkin and Emily Short.My favourite work is *Hoist Sail for the Heliopause and Home* by Andrew Plotkin. It stunned me when I first played it. It's a wonderful, five minute game which mixes a linear story about exploration with a significant sense of loss and destruction. At the end I was left thinking for a long time.

You're a *REXPaint* artist – can you describe the craft to me?

[Ben] *REXPaint* is a tool for making textmode art by Josh Ge. He developed it for his roguelike *Cogmind*. It was only when people like me turned up and started using his tool that he realised how popular it has got. [...] *REXPaint* is used for making textmode art, which is a form of tile-based artwork with 8x8 tiles with one foreground colour and one background colour. It originates from a time when computers could be put into a text-only mode, and the programmer could build pictures using block characters as well as the default A-Z text characters.

You comment that each piece of artwork takes hours to create. Can you give me more details on your process, how you work, what are your inspirations behind each piece and whether any work is discarded?

[Ben] For me the process is very cathartic. I'll sit down with it on one side of my laptop screen and some film or tv show on the side so I can occupy one half of my brain while the other does the artwork. I start out with lumpy square tiles and build up and refine the imagery using tiles which approximate the shape of a curve or line I'm trying to make. From there it's just a process of following my nose. You unfocus your eyes and look to see if there are 'dead spaces' in the image – blank areas where nothing is going on. If it doesn't contribute to the imagery, I can work on rearranging elements or filling in that space with detail. Each image took two to three hours each and that level of concentration can be very exhausting. The picture of the lake took the longest – I discarded it twice. The colour palette I was using had very strict limitations and there weren't nearly enough of a particular colour – perhaps it was green - I can't remember. It's hard to make a flat plane of water look right. I built up visual interest with a foreground of various plants and a background mountainscape. In the end it's one of the pieces I was most pleased with. It has my signature in the foliage, hidden as a smattering of letters. I think in the end it took roughly six or seven hours. Also, have you ever tried to make a sloped, rusty wheelbarrow out of rectangles? I wouldn't recommend it. That was the second most difficult one.

What are your favourite pieces of artwork in the game? How many pieces in total are there?

[Ben] My favourite are the ones barely anyone will see. There's a version of the cherub statue without vines after you cut them away, and a secret Easter Egg. I saved the Easter Egg for last as a stretch goal and it was the final piece of art I had to do. It was what I looked forward to when the others were difficult. There are 12 artworks in total, one for each room with an additional two.

You called it a "labour of love" and "exhausting", I presume a lot of time was sunk into the game - how long did it take to finish?

[Ben] It took forever! The code seemed to flow, and the text was easy. It was as if I was having a conversation with the available actions the player could use. LOOK BEES would lead me to describe the bees and what they were doing – floating to flowers. This would give me a new noun, flowers, to describe. It was easy to keep adding more and more, and then add more features to make the world feel more rounded. [...] I had a month to make the game, and I worked on it in every spare hour when I wasn't at work – in the evenings and across the weekends.

You've added as much content as possible, such as the aforementioned Easter Eggs, and so many different responses to examining objects and alternative endings to the story. Your way of crafting the adventure has been to chain these examinations together to encourage the player to look at everything and take clues. Why did you chose this path over the more traditional route of making more objects instantly visible in the text?

[Ben] Ultimately, I wanted the search for mushrooms to be a real 'search'. I wanted the user to look under leaves and between the
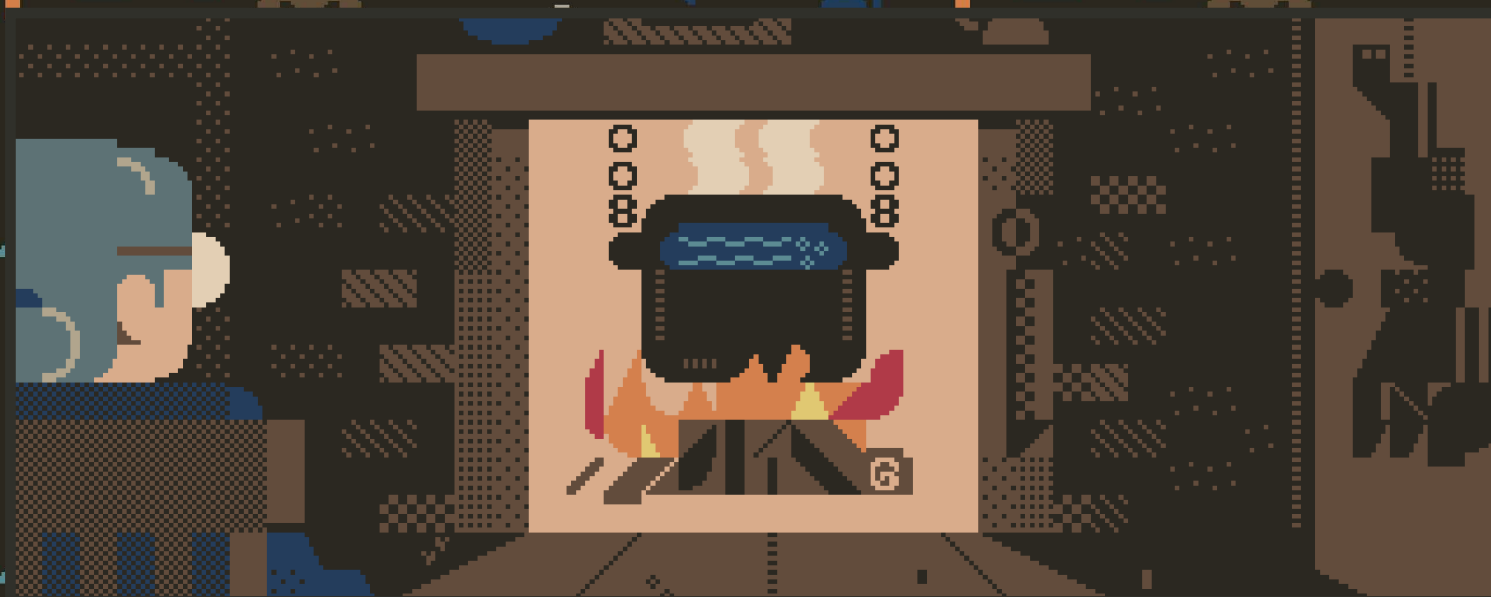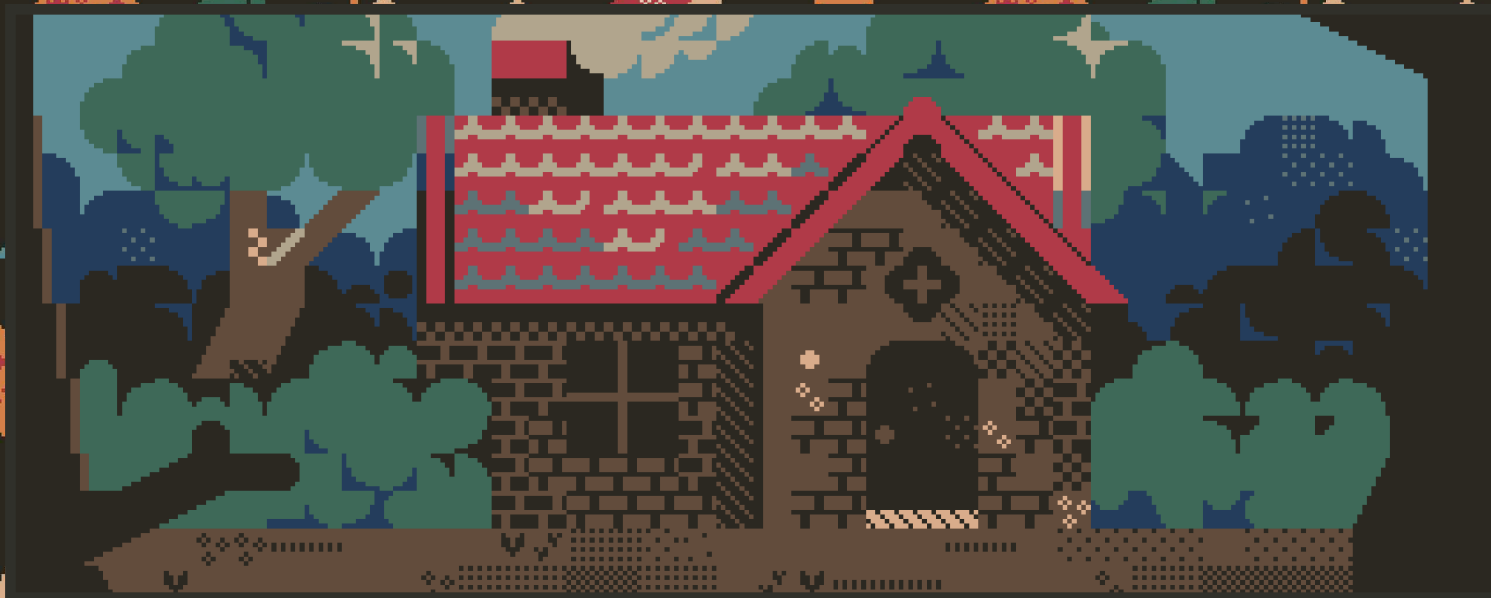
roots of trees, but I also wanted to keep the interaction simple. On the flip side, it can often be jarring when you make objects appear at the bottom of the room description. There could be a room with a rich description, but the only thing the player will focus on is the grandfather clock object which is highlighted in the object list.

I wanted to give all the items equal importance. In places where the player was expected to do something complicated with an object – perhaps examine it further or do something else to it, I drew that object out into the object list to say 'well done, you found the thing I wanted you to find, now it's time to poke it a bit more'. I found this was a useful way to lead the player on and feel like they were making progress. People found the puzzles which had objects in the room much easier than ones which didn't. With hindsight I'd make that a much more uniform experience – using the object list to prompt interactions.

I also wanted to prompt the idea that anything could be important, not just the things which are code relevant. Players – especially seasoned veterans or people who play *MUDs* – often think of the room description as unimportant wallpaper which is full of bolted-down objects. The opposite is true for engine-objects. "If it's an object, or it has coded features it must be important!" Case in point – to make my world feel boundless, I added an exit which leads to town, but the player wasn't allowed to enter it. On trying, it said "not without Grandma". I've had people write to me asking if it's possible to get to town. It's not, but I wanted the player to think they could, if Grandma willed it.

Without too many spoilers can you give me your favourite surprises for the player, and why you put so much time into adding depth to the game that many standard players wouldn't find?

[Ben] Some of the hidden content probably won't ever get seen. [...] I quite like the idea of there being buried treasure that might one day get discovered, and that there are secrets that can only be found by someone inquisitive. I also like that people have been discussing what they have or haven't found. There are narrative details hidden in the text. There are clues which tell the player about what happened to the player character's parents, and there are clues which detail in passing the relationship between granny and the player. Most of these are hooked up to affect the ending, and so each will be unique to the play through. It's designed so it can't all be seen in one sitting. [...] Part of that was to encourage replayability. At the end, the game lists some of the things you

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Native weeds and wild vines mingle with neglected
vegetables in the vegetable patch. More of the old garden
has been consumed by the wilderness to the south. To the
east, an animal path weaves through dense briars, thick
and dangerous like a nest of snakes.

Exits: S (↓), E (→)

You see:
  A Skinny Sycamore Tree Has Taken Root

>LOOK AT TREE

Long and crooked, this sycamore tree is the king of the
weeds. Their spiraling seeds get carried by the wind and
end up everywhere. Granny told you a story about your
Grandpa's endless fight against these trees to prevent
them taking over the garden. Its growth here is symbolic.

The tree's bark is covered in growths.

>
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[Above] With a fanciful narrative and dazzling illustrations, *Mushroom Hunt* is a wonderful adventure game full of charm and character.

could do in the game and whether or not those were done as an encouragement to play again.

What kinds of things may never be found?

[Ben] [...] There are some scary, lonely endings which result from discovering certain narratives mixed with particular mushrooms in the stew. Most people who complete the game by finding all the mushrooms won't get to see those endings. I'd like to think there are players who try different combinations of mushrooms.

And the Easter Eggs?

[Ben] The Easter Eggs and hidden features are there to reward inquisitive players. The path leading to the town also has a description in the off-chance that someone manages to break the game. I also added an Easter Egg specifically for my sister and father, who spent so long poking and prodding at the game, trying to work out how to get to the town. For them I added an Easter Egg that only they could find as a love letter to them both.

As with many adventures, Mushroom *Hunt* pays homage to *Colossal Caves* by allowing the player to cast a very special magic spell?

[Ben] [...] I feel like that's an important inclusion for any text game. It's one of the first things any greybeard will try. It doesn't really do anything - beyond startling grandma.

How did you find coding using Chris Ainsley's fantastic *Adventuron* System?

[Ben] We, as a group of people in the Adventuron Jam, really pushed it to its limits! I think Chris was still coding new additions to the engine right up to the end of the jam. Here we were, most of us with a programming background, trying to force this beginner-friendly tool into the shapes we wanted for our games.

Did it make it easy to write an adventure?

[Ben] I'm a completionist, so when I was faced with a children's tutorial which unlocks step by step, I went through and read it all. It was only after completing the tutorial that I'd seen that Chris had posted an adult's reference guide! Both of the documents were very easy to understand and use.

Did you have any stumbling points at all with the system?

[Ben] I stumbled a bit with syntax. Sometimes it'd be an equals sign, sometimes a colon. Sometimes objects would be similar to JSON and sometimes they'd be lists of strings. That made programming quite difficult as I had to rely on the built-in autocomplete - which, by the way, was like an interactive documentation. I really enjoyed that. [...] I think towards the end of the jam the engine was starting to grumble. It was so full of long text descriptions – pages and pages of writing per room – that the app was starting to struggle. After all, it was only designed for small amounts of text in the classic adventure format, and it processed the script for syntax after each keystroke. I had to resort to coding in a separate app, then pasting it back in to *Adventuron* for the autocomplete to check over my work. [...] It's definitely an excellent tool for beginners. I couldn't recommend it enough to my friends who are getting into text games but were put off by code – but I was definitely pushing its limits.

Mushroom Hunt was a deserved winner of the competition and was featured across some of the gaming press including a high-profile review on the Rock, Paper, Shotgun website. How rewarding was it to get the recognition?

[Ben] It's been a great experience. I also got a review on PCGamer and I'm touched that people enjoyed my game enough to want to write about it. It's also interesting to see a play-by-play of player experiences, which is not something I usually get to see. I've had a few people play through other games as lets-play formats where they record to YouTube and it's really nice to sit alongside them as they figure things out. [...] The Rock, Paper, Shotgun article was a mixed bag. [...] Unfortunately, the screenshot in the article showed the user writing in full sentences and getting frustrated with the parser throwing an error. It was jocular, but it's often the side of text games which are presented to the general public – that they're these archaic, incomprehensible programs. After seeing that in the article, I revisited the program to add a notice to the title card that the game takes simple VERB-NOUN entries (i.e. TAKE BOX or TALK GRANNY). It would be a shame if someone saw the article and were put off by text games because of it.

Have you enjoyed the fans' comments too via itch (which gives a nice feedback mechanism) and via the usual social media platforms?

[Ben] I get a huge thrill from interaction with players. I'm very glad that we live in a time where participation is so easy. Sometimes I'll follow site traffic back to its source and find it has its own little community of players talking with each other about what their experiences were and what they found. [...] The feedback from users on *Mushroom Hunt* has helped me highlight what worked and what didn't work in the game.

What kind of things did and didn't work? Would you change anything if you revisit the game?

[Ben] There are some text adventure conventions I broke, such as not listing objects in the rooms, which some users familiar with text games didn't seem able to overcome. I'd often have people tell me that they found the three surface-level mushrooms but couldn't find any more. I think that is something I'd address if I was making it again. Perhaps a soft gate at the start of the game where the player is limited to only looking around, forcing them to look at nouns in the descriptions and discover the feature organically. I quite like when games make you learn tutorials without specifically saying 'this is a tutorial level, you do this now
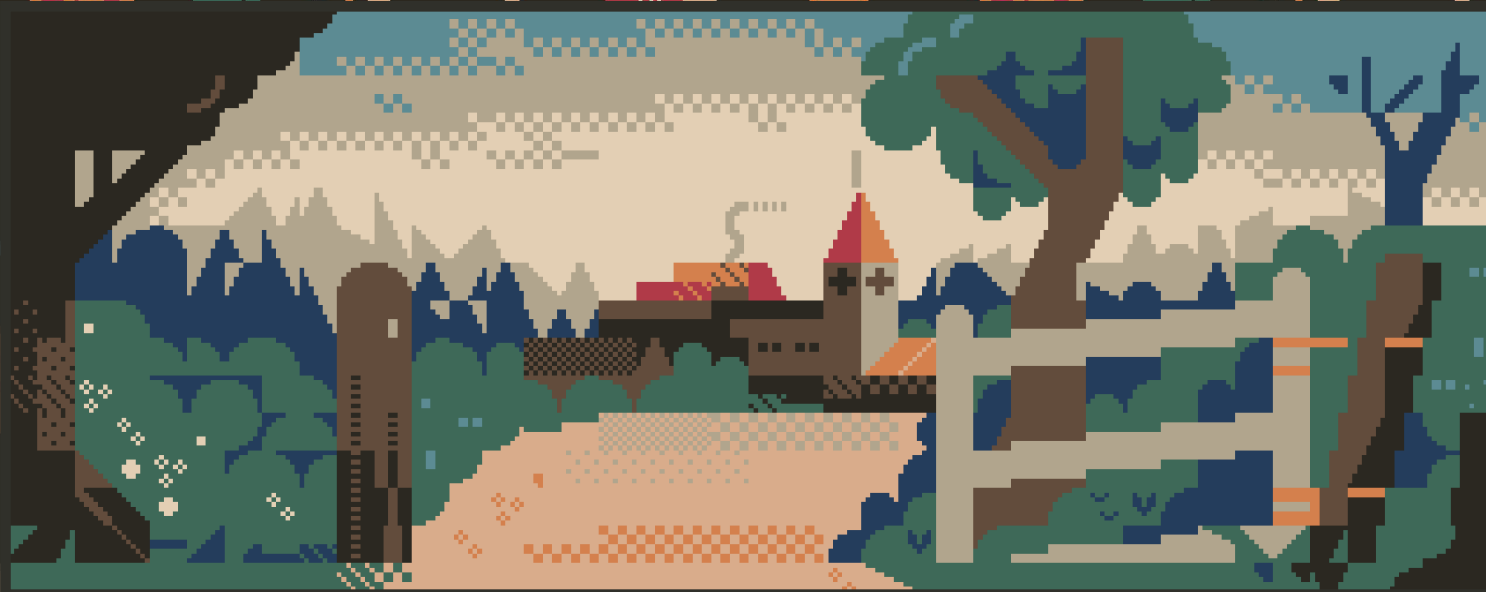
Do you know how many times its been played?

[Ben] As of the start of November 2019, about 3800 times."

What about writing a sequel where we get to go through the gate to the village?

[Ben] I think I've told all there is to tell about *Mushroom Hunt* – and the village might not be all that interesting to explore. Short of *Galatea* [written using the *Inform* engine in 2000] by Emily Short, I haven't seen a reliable way to make NPC characters who aren't two dimensional – and going into the village might cause more issues of depth than it's worth. This might explain why Granny punishes you for talking with her too much, and why she's so ornery!
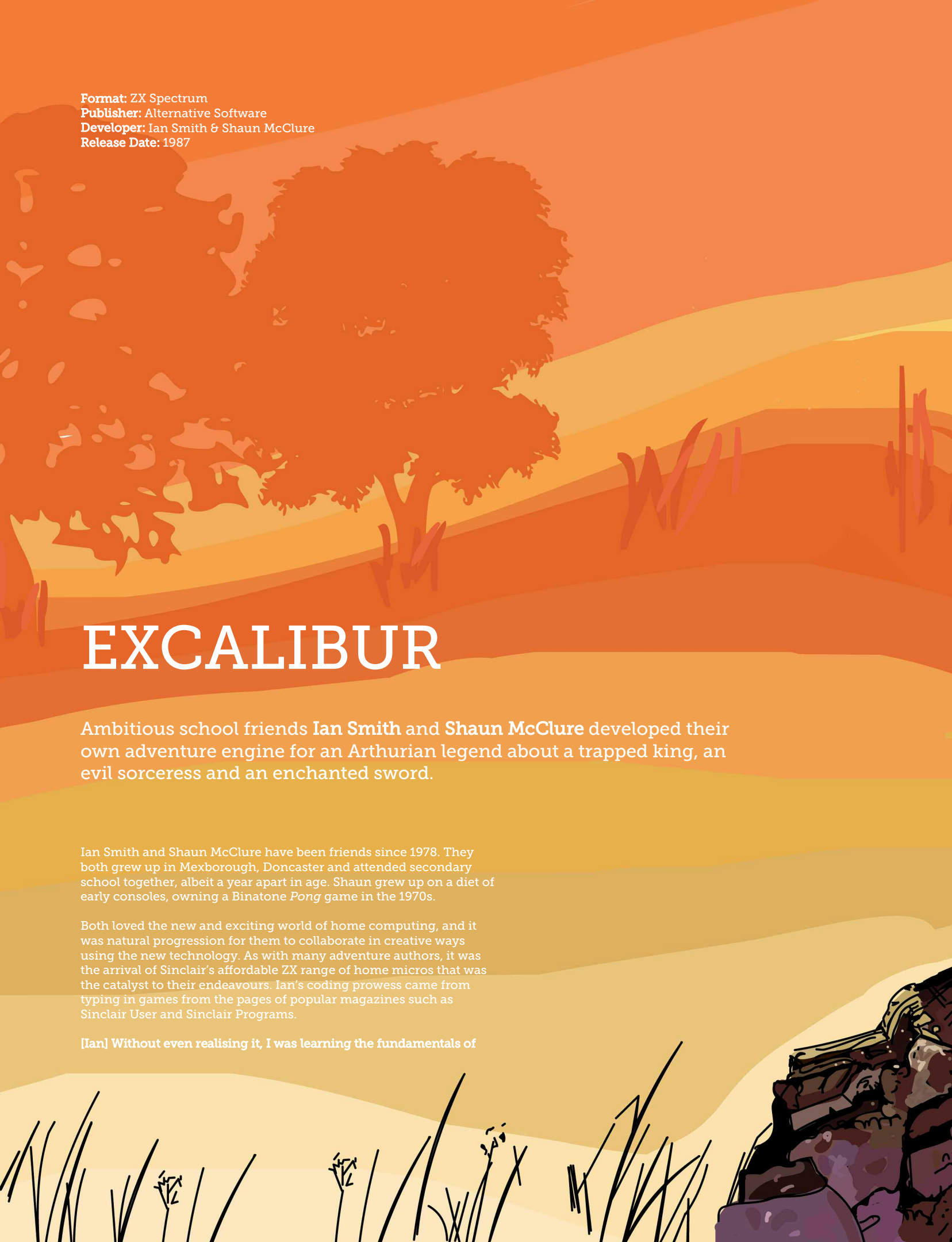
Any plans for further adventures with *Adventuron*? You've even started to design your own adventure engine?

[Ben] I think I might return to *Adventuron* one day. The system is comfortable and easy to use. Eventually I'd like to finish my own text adventure engine [called] *IFFY*, which stands for *Interactive Fiction For You*. [It's] a JavaScript based framework which allows users simple functionality, images, rooms, descriptions,

commands, simple movement and audio with the ability to branch out into script. The format allows expansion of the base engine into more complicated systems. [...] The idea will be to distribute it on an open software license so that anyone can use it and modify it and, most importantly, use it as a base for commercial works. It's a hobby project, but it's already in a workable state.

You've experimented with several game ideas on your portfolio page, including some delicious mockups for RPGs akin to an ASCII *Bard's Tale* – will we ever see one of these made into a game?

[Ben] It turns out that making the concepts is a lot more fun than taking a full year to make the game! For the most part the games have run into individual problems – either the textmode is too difficult to render into a dynamic format, or the scale of the project would require more imagery than is feasible to make. I've spent time on making an engine which makes programming games with textmode graphics much easier – allowing for sprites and filter effects. [...] I think, when I've finally settled on a concept and I have the time and money to invest into those concepts, I'd really like to develop something big and worth playing.

Format: ZX Spectrum
Publisher: Alternative Software
Developer: Ian Smith & Shaun McClure
**Release Date:** 1987

EXCALIBUR

Ambitious school friends **Ian Smith** and **Shaun McClure** developed their own adventure engine for an Arthurian legend about a trapped king, an evil sorceress and an enchanted sword.

Ian Smith and Shaun McClure have been friends since 1978. They both grew up in Mexborough, Doncaster and attended secondary school together, albeit a year apart in age. Shaun grew up on a diet of early consoles, owning a Binatone *Pong* game in the 1970s.

Both loved the new and exciting world of home computing, and it was natural progression for them to collaborate in creative ways using the new technology. As with many adventure authors, it was the arrival of Sinclair's affordable ZX range of home micros that was the catalyst to their endeavours. Ian's coding prowess came from typing in games from the pages of popular magazines such as Sinclair User and Sinclair Programs.
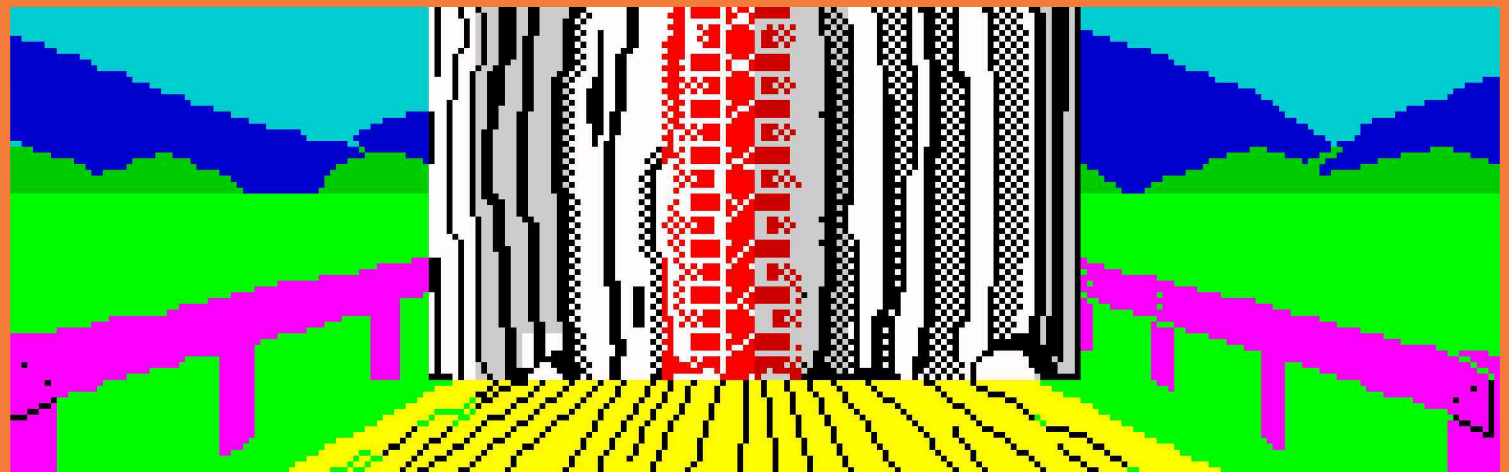
[Ian] Without even realising it, I was learning the fundamentals of
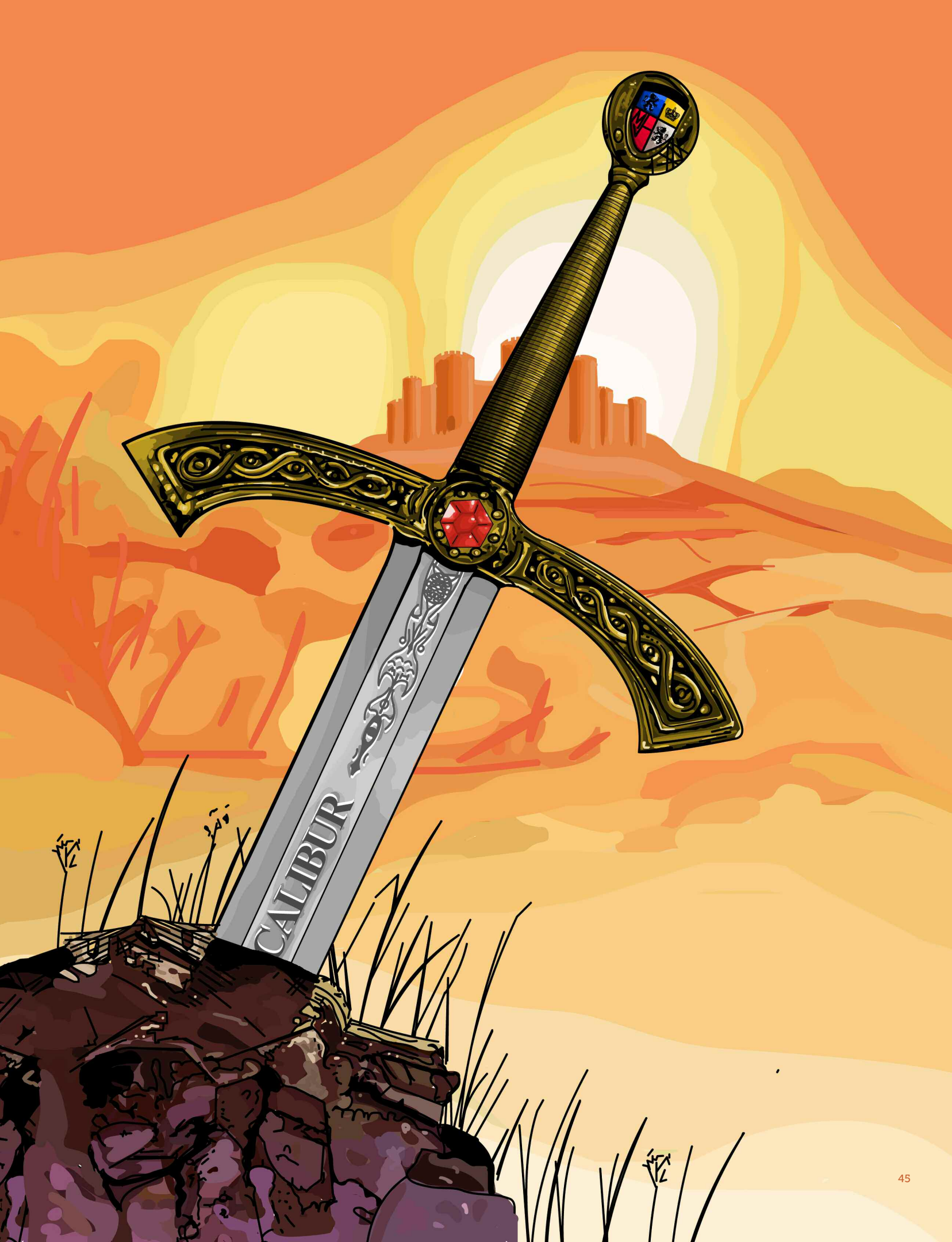
[Above] The first puzzle location from *Excalibur: Sword of Kings* demonstrates the highly efficient symmetrical graphics engine devised by Ian Smith and Shaun McClure. Note the path, fence and background forms the basis for the majority of images in the game.

[Above] If you PROP LADDER at the same location, then the object appears in the location image. This technique is just one of the unique "transfers" that gave the game such charm, and demonstrated its bespoke engine.

programming whilst I earnestly typed these games in to the ZX81, and more to the point, debugging the games when they invariably failed to work. As I examined the code which others had written, I began to think to myself "I could do that".

Shaun was less of a programmer and more of an artist, his flair becoming apparent from an early age. He enjoyed the subject in school and at home, and wanted to pursue a career in illustration, primarily for book covers.

[Shaun] Ian was a mate from my junior school years. He was the one that was really into adventure games. I used to watch him, which was quite interesting actually. I was crap at playing them, I just didn't have the patience. It was Ian that had learnt how to code Z80 [assembly language] — I was still using BASIC.

[Ian] I had no such artistic ability, [but] Shaun had an artistic flair which began to find a practical use with the advent of the Sinclair ZX81 and Sinclair ZX Spectrum.

Shaun had started to create artwork [see **The Art of Shaun McClure**] using a computer when he obtained a ZX Spectrum - its high resolution, multi-coloured graphics favouring his trade over the

monochrome blockiness of its predecessor. Once he had put together a portfolio of images, he wrote letters to several emerging software houses in the hope of attracting employment, at first offering his artwork services for free. John Wilson of Zenobi was one of the publishers that accepted this rather kind, if naïve, offer.

[Shaun] I worked on a few games, for free, for Zenobi Software and had made a few loading screens for other people, so I was getting experienced. I did the first artwork on graph paper though, as I had no art package, and I had to work out where I put the pixels and then calculate the binary totals for each line.

Shaun was into Dungeons and Dragons, and the Ian Livingstone and Steve Jackson Fighting Fantasy series of books. Ian was a lover of all things fantasy, and so they tossed ideas for games and themes around, looking for some common ground.

[Shaun] We originally wanted to write an arcade game, but sprites were a bit beyond Ian's skills just then. So, I suggested writing an adventure game. I don't think Ian was too bothered about the story - he just wanted to make a game. I was really into role-playing back then, and I think my Dad was the one into the Arthurian stuff, so I suppose I half invented the story with that in mind - I wanted his

approval or something like that.

[Ian] [...] The Arthurian theme was appealing to us from the start. We had previously been inspired by viewings of John Boorman's 1981 epic film Excalibur. When creating the narrative for the game, we both contributed to that. We both enjoyed reading fantasy books from our local library, and so writing short descriptions for the locations in the game came quite naturally to us.

The resultant *Excalibur – Sword of Kings* [to give its full name] delved into Arthurian lore, tasked by Camelot's wizard Merlin to restore the court to its former state. The well-written inlay introduction from the eyes of Merlin set the scene, describing the appearance at Camelot of a dark, cloaked stranger: "She demanded an audience with King Arthur Pendragon, wanting to know the location of I, Great Merlin The Wizard, to absorb my power. [...] I was on a secret mission at the time and Arthur told her so. Believing him to be lying the stranger revealed herself as Crania, an evil she-wizard from beyond the plains of dreams and threatened Arthur with death unless he told her of my whereabouts. Arthur grabbed Excalibur and swung it at her in a deadly arc. She foresaw this and disappeared to avoid the blow then reappeared behind him. Before he could act, she had cast a cowardly spell of dreams." It's not clear whether you are a Knight of the roundtable in this adventure, but the challenge of rescuing Arthur, finding the titular sword and removing the she-wizard from the now dark, evil, fortress Camelot is down to you.

On first impressions, its noticeable [and refreshing in some ways] from loading and running *Excalibur* that it isn't *Quilled*, or *GAC'd* or even *PAW'd*. The graphics are bold and instantly drawn, and the parser is quick to respond but utilises quite a limited vocabulary [all

MYTHICAL LEGEND CORRECTIONS AND CLARIFICATIONS

Though the inlay cover for *Excalibur* depicts the famous sword embedded in a stone, the Arthur legend created by Sir Thomas Malory in his work Le Morte D'Arthur states Excalibur was given to Arthur by the Lady of the Lake near Bodmin Moor at the request of Merlin.

[Ian] We soon realised that having graphics for every location took up too much space in the limited 48K Spectrum. We could have opted to use the 128K version, but we felt that would limit our market. So, we came up with a cunning plan or two. We noticed that nearly all the locations featured symmetrical backdrops, so rather than store the code for the entire backdrop, we cut the scene in half.

[Shaun] We hit upon doing half a location picture then flipping it to get the other side too at some point for some of the locations that had a lot of simple straight-line perspective - we almost doubled the number of locations images by doing this to about 7 or something ridiculously low.

"We came up with a cunning plan or two. We noticed that nearly all the locations featured symmetrical backdrops, so rather than store the code for the entire backdrop, we cut the scene in half."

listed in the inlay]. For Shaun and Ian there was no question of using something like *The Quill* which was readily available at the time [many Spectrum archive websites still incorrectly suggest that the game is *PAW'd*]. Ian was ambitious, and trusted his own coding skills, having evolved his knowledge of BASIC onto Z80 machine code with the help of Crystal Computing's *Zeus Assembler*. They both wanted an adventure that would be fast and responsive, and that would feature Shaun's graphics in every location.

[Shaun] We'd decided that something heavily graphics based would cut down the need for an extensive gaming engine, and we sort of based the game on Scott Adams games, but with bitmap graphics. [...] I think people were a bit sick of the tired look of *GAC*, *The Quill* and *PAW* games - some people such as Fergus McNeill and a few others managed to make them look different but there was also a glut of very same-y looking ones too.

They split the work, Ian concentrating on the engine and Shaun on the graphics. Shaun used a combination of Print'n'Plotter's *Paintbox* and Melbourne House's *Melbourne Draw* utility [by *The Hobbit* co-creator Philip Mitchell] to create pixel art for the game. The technique that finally appeared in *Excalibur* was very reminiscent of Teoman Irmak's bitmap illustrations that were used in later Adventure International (UK) games. It was an effort to distance themselves from line, plot and fill routines because although they were very memory efficient, they were exceptionally slow. Teoman devised a "bitmap" routine that filled the screen like a mosaic, and Ian and Shaun's routine was very similar.

[Shaun] It was just a set of locations that we badly disguised by overlaying additional art or recolouring sprites - it just seemed the obvious way to make a game that was 100% bitmap art.

[Ian] I wrote a subroutine to recreate a mirror image of the left-hand side of the screen, but over on the right-hand side. In one fell swoop we reduced the amount of memory required for graphics by 50%. We soon realised our backdrops had begun to look a little spartan. So, we began to populate them with furniture - smaller graphical images which we over layered on top of the main backdrop. We called them "transfers". This enabled us to make our locations appear more interesting. For example, a suit of armour or a lamp could be seen on screen in several locations, but only be stored once in game memory.

The "transfers" were an interesting element to the graphics engine and really helped immerse the player into the adventure. Objects that could be picked up and manipulated within locations would appear and disappear on the screen, and the non-playable characters that you encountered on your quest would suddenly be overlaid over the location image.

It was something of a unique feature in adventure games, only more commonly found in RPGs or other arcade-adventure style hybrids such as *Valhalla* by Legend which showed characters moving in and out of locations.

[Ian] When I say furniture, this also included non-player characters. It was not difficult to produce code to achieve this, the only real issue being in making sure there was sufficient space around the character in order that limited colour bleed occurred with adjacent objects. Colour bleed is where two nearby objects merge their colours together, a constant gremlin for the ZX Spectrum.

[Shaun] Yeah - well most of them were basically "blockers" and if you could see the road in front of you, or a doorway, it made sense to show anything else that was significant - including huge demon

knights and so on. Plus they are nicer to draw than fences and bushes.

[Ian] It also gave us the opportunity to remove images from the screen in response to the player's actions.

Despite all the efforts to reduce the memory overhead of the graphics, *Excalibur* is a very short adventure, with just under 30 locations, though each does have a graphic – and has the addition of being semi-interactive with the aforementioned "transfers". To bring

compression techniques I employed. One that I do remember is whenever a continuous line appeared on screen, say the horizontal edge of a wall, rather than consume 10 memory addresses to store a line 10 bytes long, my subroutine would count the number of addresses the line occupied first, then it would place that count number in one memory address. In the next memory address, it would place the value to display on screen - 255 in the case of a straight line, i.e. 11111111 in binary. The game code would then know that the 255 value should be placed on screen 10 times. A significant saving once you scale the numbers up.

"Colour bleed is where two nearby objects merge their colours together, a constant gremlin for the ZX Spectrum."

the program together they both worked at each other's respective homes during the week. Once Shaun had finished a series of screens he would go around to Ian's house, usually on a weekend, with a cassette in hand and they'd compare each other's progress.

[Ian] Shaun would create his graphics at home and bring them around to me on tape in SCREEN$ format. [...] I would load the images on screen and use an assembly language subroutine I created myself to scan the screen images into another part of memory. Although this was long winded, it allowed me to compress the files during the scanning process. I have forgotten most of the

Ian discussed the game with his family, and his dad Tom contributed to the compression routines by suggesting various mathematical formulas along with his own version in pseudo code, since he wasn't able to code in BASIC or Assembly Language. Ian converted his efforts and incorporated the better compression.

[Shaun] Tom was a clever guy and thought of ways for us to make memory compression techniques mostly - his background was in electronics.

[Ian] I think saving memory space was the biggest coding challenge,
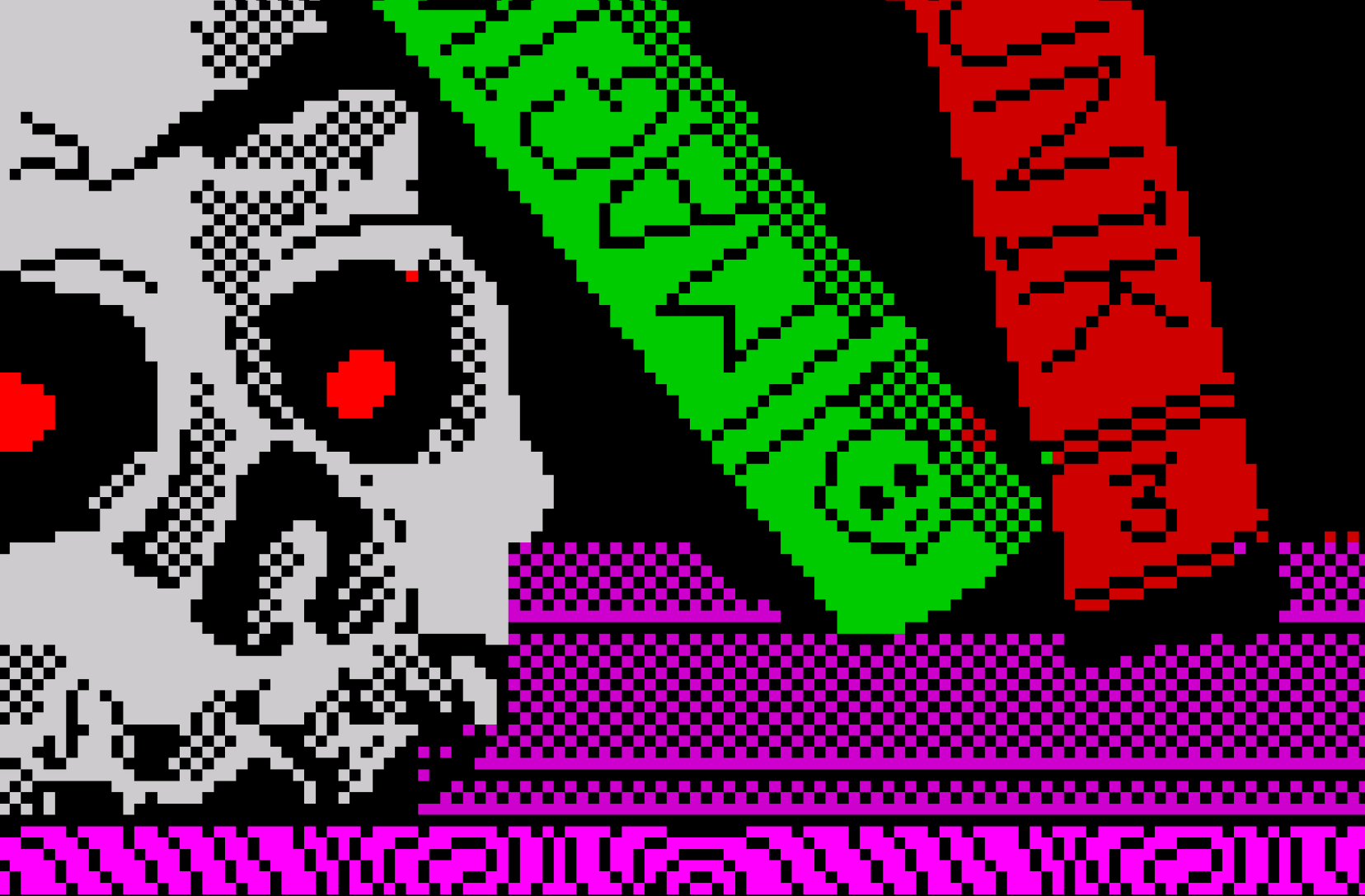
but also the most rewarding. The parser was also quite challenging.

Another small graphical addition that helped to distinguish *Excalibur* from other off-the-shelf utility games was a custom designed font for the input commands. It was twice the height of the standard Spectrum text and used a clever split colour-scheme with the top half of the characters differing to the lower. It shortened the amount of text that could be entered on the parser line, but it was effective.

[Ian] The double sized character set on the game's command input was merely a novelty to make the game stand out from its peers. Shaun had to design a completely new font of his own to achieve this.

[Shaun] That was Ian's idea - I thought it was a nice touch, but it made it look like a [kids] game, and because of the simple game-play that was picked up on, much to my dismay. But then again that attracted a lot of younger players to it too.

The game was finished in around nine months and when it came to publish the game, the pair touted it around a few companies, including Doncaster's CDS Micro Systems who were local to where they lived. CDS had originally published a few adventures in their early days [such as *Castle Blackstar*] but decided to pass on *Excalibur*.

[Ian] Though they did later stock it on the shelves of their local outlet shop.

Ian's dad suggested they contact Roger Hulley's Alternative Software in Pontefract, and a deal was struck to launch the game on their £1.99 range. By 1987 the market was in decline, so it was keenly priced, and

Alternative were a good outlet for the genre, having supported several other independent adventure authors such as Charles M Sharpe. Alternative were also building a reputation for giving a raft of quality full priced adventures a second life at pocket money prices, such as Piranha's *The Big Sleaze* and Mosaic Publishing's *Secret Diary of Adrian Mole*.

[Shaun] We'd sent it all over I think - to Ocean and other big companies. Alternative were the ones to say yes first. [...] I still get on with Roger. He's a nice bloke. Money wise, I think we only made about £60 from it - I can't remember if that was each or in total.

[Ian] We never saw any sales figures, but we did make a couple of hundred pounds in royalties, if memory serves me correctly.

[Shaun] But, I think they only made about 2000 copies.

Despite the low volume of sales and the low volume of production, the amount of hints and tips requests, and solutions that appeared in magazines suggested that the title was quite successful and enjoyed by the playing public. Though Shaun has a different take on the articles that started to appear.

[Shaun] I think I sent a few of those in myself - I was an attention whore back then. All good marketing though!

It managed to secure a review in both Crash and Sinclair User, the two Spectrum magazines that were able to continue into the machine's decline. Derek Brewster was on-hand in the Crash adventure column to give the game a respectable 83% saying that "*Excalibur – Sword of Kings* is a fine cheapie", with an "interesting

[Above] Though the majority of the puzzles in *Excalibur* are straightforward and linear, in this example the opening prop can be used more than once to help build bridges.

[Above] With one slash of your trusty sword the Demon Knight is dispatched - he's just one of the many beautifully drawn characters that you encounter in the game.

[Excalibur:Sword of Kings] Arthur's Camelot homes into view, showcasing the impressive and detailed bitmap-style pixel work of Shaun McClure.

writing style and bounce-along plot." Jim Douglas in Sinclair User, awarding the game 8/10, said it was a "good budget adventure offering" that was "graphically pleasing", but did highlight it as being "a bit on the basic side."

Both adventure columnists did agree on the game's undoubted quality, but somewhat linear, and simple approach to puzzles. It wasn't detrimental to the game, adventures were beginning to increase in complexity and difficulty as text adventure technology, players and authors matured. Adventures aimed at the beginner or younger player were thin on the ground and weren't usually of this quality.

[Shaun] [...] I thought it was about right as a review. We only had so much memory and we seemed to be on a quest to fit more art into the next titles rather than more gameplay - Ian saw it as a technical challenge and went along with it.

[Ian] Some reviewers thought it had been aimed at children, but that was never our intention. Looking back though, I think their opinions were justified. We did go on to make our next games a little more complex, but that was more on account of our improving technical abilities and coming up with new innovations behind the scenes. I wish we could have included a greater variety of locations and graphics in *Excalibur*, but as I mentioned, we were learning as we went along. I am most proud of the speed of the game in terms of responses to the player and building the screens. I suppose what would irk me now is the very limited vocabulary.

It's simple puzzles and appeal as an introduction to adventuring was alluring to *Adventuron Adventure System* creator Chris Ainsley. He picked up the game as a potential title to convert to his platform.

[Chris] I was thinking about a long form education-focused tutorial to be built into the not-yet-released *Adventuron Classroom* system, but I needed a game. [...] I really enjoyed *Excalibur*, specifically the interactivity - standing a ladder against the tree shows a graphic of a ladder standing against the tree! It was a very linear beginner-level verb/noun adventure game, and that's the style of game I wanted to base a tutorial around. I was so busy developing *Adventuron* I struggled to come up with an adventure of my own, so it seemed like a no brainer - pay tribute to a forgotten gem, and to eliminate the pesky work of designing and illustrating my own adventure game.

Alongside his work with *Adventuron*, Chris had started to develop a series of converters that would take the databases of existing adventures built with *The Quill* and *PAWS* and convert them to his system. With *Excalibur* being a bespoke engine, he needed another approach for the conversion. A Saturday afternoon's playthrough was all it required, completing he port in a very old-skool way.

[Chris] I simply re-implemented it [...] from observation, copying the location text and messages from trying various combinations of inputs in the emulator - the downside is I may not have ported all the responses.

There's no noticeable difference to both versions, and the layman player perhaps would not stray into every single verb combination that the original game supports. With *Adventuron*, the advantage of having a pure digital version is the ability to continually evolve and update the game if required. One of the difficulties for Chris, however, was reproducing the graphics.

[Chris] I used *Spectaculator* [ZX Spectrum emulator written by Jonathan Needle] and took screenshots for each location, and each graphic variant. I then manually cropped and saved them as PNGs. For graphics with flashing attributes, I took two screenshots, and then made a two-frame animated gif for those graphics. [...] The game is quite small, and the goal wasn't to change the game, but simply to recreate it, and to chronicle the process of how to code it using *Adventuron* from beginning to end.

The graphics display under *Adventuron* is instantaneous – so it does offer a slight difference to the layered build and overlay of the original engine devised by Ian and Shaun. Having worked on a remaster of Linda Doughty's *The Beast of Torrack Moor - 30th*

You are at a crossroads.

Exits: North, South, East

You can see an old woman selling lamps.

>

[Above] Chris Ainsley's impressive Spectrum +3 port [currently in development] of the *Adventuron* version of *Excalibur* is designed to execute within in the standard 48K footprint of a basic ZX Spectrum, but requires the enhanced hardware as it streams graphics from the disk file system.

Anniversary Edition and looked at the underlying code and puzzles, Chris has a good idea on how to improve legacy adventures. He has waved his magic wand over *Excalibur* and applied some suitable polish to the game.

[Chris] My work on it was minimal. I cleaned up some of the attribute clash in one of the screens, changed the language to be more young-child friendly, and fixed some implementation issues. I also designed a new font for the game, Bamburgh, which went on to become the standard *Adventuron* font.

Not content with just porting the game, Chris, through Adventuron Software Limited has gone to the extraordinary step of securing the IP to the game, including the story, cover art and other associated assets. It's one of the few examples in the retro community where IP has been purchased without the explicit aim of making money.

[Chris] I planned to use the game as the basis of my first *Adventuron* tutorial. Roger Hulley, who still owns Alternative Software was a gentleman, and agreed in principle to let me use *Excalibur* for *Adventuron* free of charge. I brought up the idea of outright IP purchase because I was investing months of my time creating the documentation and screencasts around the game and I'd be in a fairly bad negotiating position if permission was revoked after building all that material around it.

Chris has no solid plans to do anything further with the newly acquired IP - such as sequels, but has started working on porting his new *Adventuron* version of *Excalibur* back to the ZX Spectrum, using his *Adventuron To PAW* converter. He's started working on an

updated graphical *DAAD* version in the near future that uses the *DAAD Reborn* compiler, and the *Maluva* plugin [named after a NPC character in Aventuras AD's *La Aventura Original*] created by Uto. *DAAD Reborn* with *Maluva* allows for quick and easy loading of raster graphics from floppy or hard disks.

He's worked in a new *Excalibur* tutorial, helping beginners to get to grips with the genre, and has plans for a potential *Excalibur*-inspired gamejam, with the blessing of Shaun and Ian.

[Ian] When *Excalibur* was remade by Chris Ainsley of *Adventuron*, I was quietly pleased. It is nice to know that there are people out there who retain fond memories of the game. Ironically, most of those people were probably below our target age group at the time, so giving more credence to the reviewers' comments! I had no involvement with the remake, apart from granting permission. I have played Chris' version, and I think it is very impressive. He has tidied up certain elements, and added a very useful hint system which will help today's players who may have no concept or experience of how to play text based adventure games. It will undoubtedly gain a new audience as a result of these improvements.

To play the *Adventuron* version, or to download the Spectrum +3 beta and to keep up-to-date with the ports of Excalibur to other adventure systems visit:

https://adventuron.itch.io/excalibur

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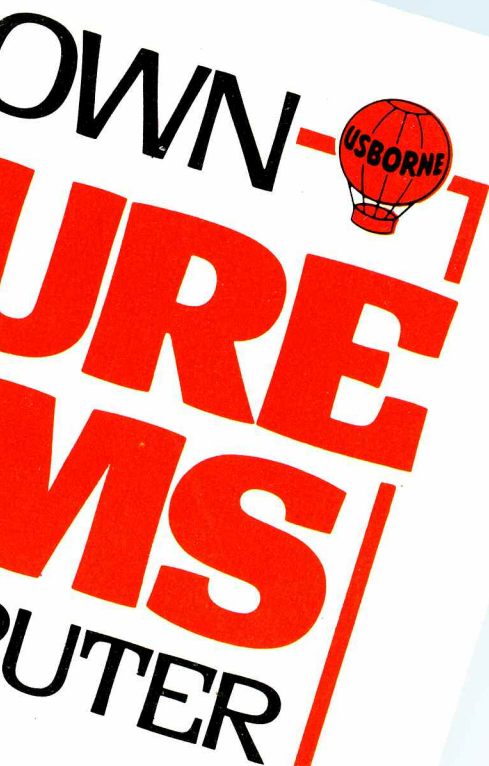
LINE BY LINE LABYRINTHS

How a series of program listings from a beloved children's book publisher inspired a generation of adventure writers and coders.

Ah, the type-in adventure. For a legion of thirtysomethings, listings were a staple part of the computer-owning teenage diet in the 1980s. Who hasn't spent hours hunched over a keyboard, entering page after page of BASIC and machine code DATA statements, using a ruler to keep track of your progress as you worked through the listing?

Type-ins featured in many specialist computer and gaming publications as well as spawning dedicated listing books. Programs covered every genre popular in the day; arcade clones, text adventures, sports sims, maze games and platformers. They were often crude, slow and full of bugs, but being able to type them in yourself and see the end result on screen was part of the magic. Associate Professor of Digital Media at MIT and co-author of the book *10-PRINT* and academic adventure study, *Twisty Little Passages*, Nick Montfort comments – type-ins are not nostalgia or trivial of a lost era; "This type of program was written and run by millions in the 1980s on their way to a deeper understanding of computers."

Their popularity was bolstered by their cheapness and accessibility. For a fraction of the price of a commercial game, a book promised 10, 50 or even 100 "amazing", "instant" and "write your own" programs for your microcomputer. Unfortunately, the the games often were some hideous travesty where the blurb and the hand drawn illustration promised more than they delivered.

In magazines, easily filling space must have appealed to many editors, but type-ins also fulfilled a need. Many hints and tips sections were festooned with self-entered POKES that replaced or modified a commercial game's loader and armed the player with infinite lives or ammo. Many magazines ran supplements – *The Big Book of Games* from Computer & Video Games for example, that if

PLAY THE BOOK

Many of the games featured in the Usborne books have been meticulously typed into a BBC Micro and digitally preserved to play at the BBC Micro Games Archive:

http://bbcmicro.co.uk/index.php?search=Les+Howarth

You can also read about John Blythe's superb remaster of Brian Howarth's *Micro Puzzle* elsewhere in this issue.

you were lucky included a few absolute corkers from coding geniuses like the Oliver Twins, Jeff Minter and John Twiddy.

It seems strange today, looking at bookshop shelves with such a meagre amount of computing resources [Dummies and Senior Citizen guides mainly] that back in the 80s they were awash with computer titles. Many adventure columnists combined their love of adventures and literacy skills and penned a "how-to" book: Mike Gerrard and his *Exploring Adventures* series, Tony Bridge's *A Guide To Playing and Writing Adventures*, Keith Campbell's *Book of Adventures* and even *Kwah!* and *Redhawk* co-creators Mike Lewis and Simon Price got into the act with their Amstrad adventure book which detailed their own *Adventure Kernal System*.

Perhaps the greatest reason for their success, and one that we miss today, was the standardisation of the BASIC language across every home computer. With enough tweaking you could get Spectrum listing working on a Commodore or Amstrad, with some books including the alterations to the standard listings you had to make for other computers.

Most of these memorable books were provided by Peter Usborne's publishing empire. He recognised the gap in the market and Usborne Computer Books were the first technical books written for the home. Lisa Watts, Digital Director at Usborne recalls "we were immensely excited when we got our first ZX81 in the office and realised the power it gave children to write their own programs and make something happen on a TV screen." Between 1982 and 1984 over 35 computing books were published, each adhering to the iconic Usborne brand of colourful info-packed tomes, with liberal sprinklings of glorious illustrations and meticulous attention to detail. Watts continues "we spent hours typing up, proof reading and testing the programs. One typo would prove fatal! The results were of course extremely simple, but the book graphics conjured up scene and atmosphere." Many of us can recall with fondness, tootling back and forth to school or town library feeding off Usborne books.

From the Usborne stable, one title stands out in the memories of adventure players, and that's *Write Your Own Adventure Programs For Your Microcomputer*, authored by Jenny Tyler and Les Howarth. It's intoxicating appeal started with the cover, where the fire breathing dragon fighting the brave knight drew the fantasy-hungry imagination of many a teenager. The glorious illustrations didn't stop there. Once you turned the page, you were greeted with image after image of sumptuous painting from the brush of Penny Simon, Rob McCaig and Mark Longworth.

Along with the accessibility of BASIC, adventure games provided the perfect learning vehicle [as well as being hugely popular to play] for pupils of the genre and programming. Learning how to create a game from scratch covered the majority of the skills required; from the art of writing a story and devising puzzles, to database design, string handling, loops and the use of conditional or branching statements. The authors described that "an adventure program is really a kind of database" and that "you can learn some useful programming techniques by writing an adventure."

Tyler and Hogarth's example covered all the bases and captivated so many hearts. It covered the creation of a game called *The Haunted House* – a 50 location, treasure hunt, full of gloomy passages, dark

corners, cobwebby rooms and a host of riches. Its page after page of nostalgic delight.

The book shows its age, before British micros, by catering for a particularly US centric range of computers – the TRS80, Apple, PET and VIC are supported with a Microsoft BASIC listing. Poor ZX81 and Spectrum owners, referred to as Timex computers, are dealt a cruel blow as their version of *Haunted House* won't fit in the miniscule standard 16K of RAM, and instead they are given their own special listing with over a dozen or so less locations and objects.

There were more adventure books from Usborne too. *Write Your Own Fantasy Games* was in the same "Gamewriters Guides" series, written by Howarth accompanied by Cheryl Evans and illustrated by Chris Riddell. Les turned his hand to Dungeons and Dragons, and through the pages you built the *Dungeon of Doom*, a classic roguelike with a cast of nefarious creatures. Two dedicated adventure books were released, that "marked the beginning of a completely new kind of adventure program game." *The Mystery of Silver Mountain* and *Island of Secrets*, both publishing in 1984, promised the "imaginary world of the game […] vividly recreated in colourful pictures in the book."

It was unthinkable that 30 years later, well into the 21st century, Usborne would be without a single title promoting computing and programming to children. The publically funded National Endowment for Science Technology and the Arts [NESTA] body published its NextGen report in 2011 with the aid of Fighting Fantasy author and Games Workshop founder Ian Livingstone. The landmark document set out a vision to transform the UK into the world's leading talent hub for video games and visual effects – and the crux of their recommendations revolved re-energising computing [and particularly programming] in the minds of young people. Usborne began to create a new generation of computing books for children. Despite them being out of print for over 30 years, in 2016 the company made fifteen of its classic books available to download in its website. Justifying the decision, Watts told The Guardian newspaper "I would say we use more methods to entice children into the information now. But I don't think the basic level of what they're interested in and what they understand has changed."

It was the first step to embracing a beloved series of titles. Its original adolescent readers, now well into their adulthood with deposable income and clambering for retro/nostalgia ignited another change in publishing policy. In 2018, momentum gathered behind another Usborne classic, *Supernatural World*, when Finnish fans lobbied published Tammi – who'd licenced the Finnish language rights from Usborne in the 70s – to reissue their childhood favourite. After a Facebook group garnered 3000 fans the book was reprinted and instantly hit the children's book charts, eventually going onto sell in excess of 18,000 copies. Traction was gained in the UK after The League of Gentlemen star and horror-film fan Reece Shearsmith cited *The World of the Unknown: Ghosts* as one of his inspirations and requested an interview with the original author. Director of UK Marketing Anna Howarth who had been attempting to get the book reprinted herself, used the English ctor's influence to start a petition and convinced management that the project was feasible. "I'm a big fan of Reece Shearsmith so when I found out we shared a love for this book, I tweeted about it. He replied to say he'd write a foreword if we reprinted, and it snowballed from there" she said.

The reissue was launched to great success and struck a chord with readers old and new. Plans are well underway to remaster another or the original series, *The World of the Unknown: UFOs*, so we can only keep our adventuring fingers crossed that one of Les Howarth and Jenny Tyler's books is given the same treatment.

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
Micro Adventurer, Sunshine Publications

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
Stardot Forums
Games That Weren't

Research Papers

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

Artwork

The Crimson Diamond
Julia Minamata

Excalibur: The Sword of Kings
Adventuron Adventure System

The Art of Shaun McClure
Shaun McClure, Zenobi Software, Cult Games

Write Your Own Adventure Programs For Your Microcomputer
Usborne Publishing Limited

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*.