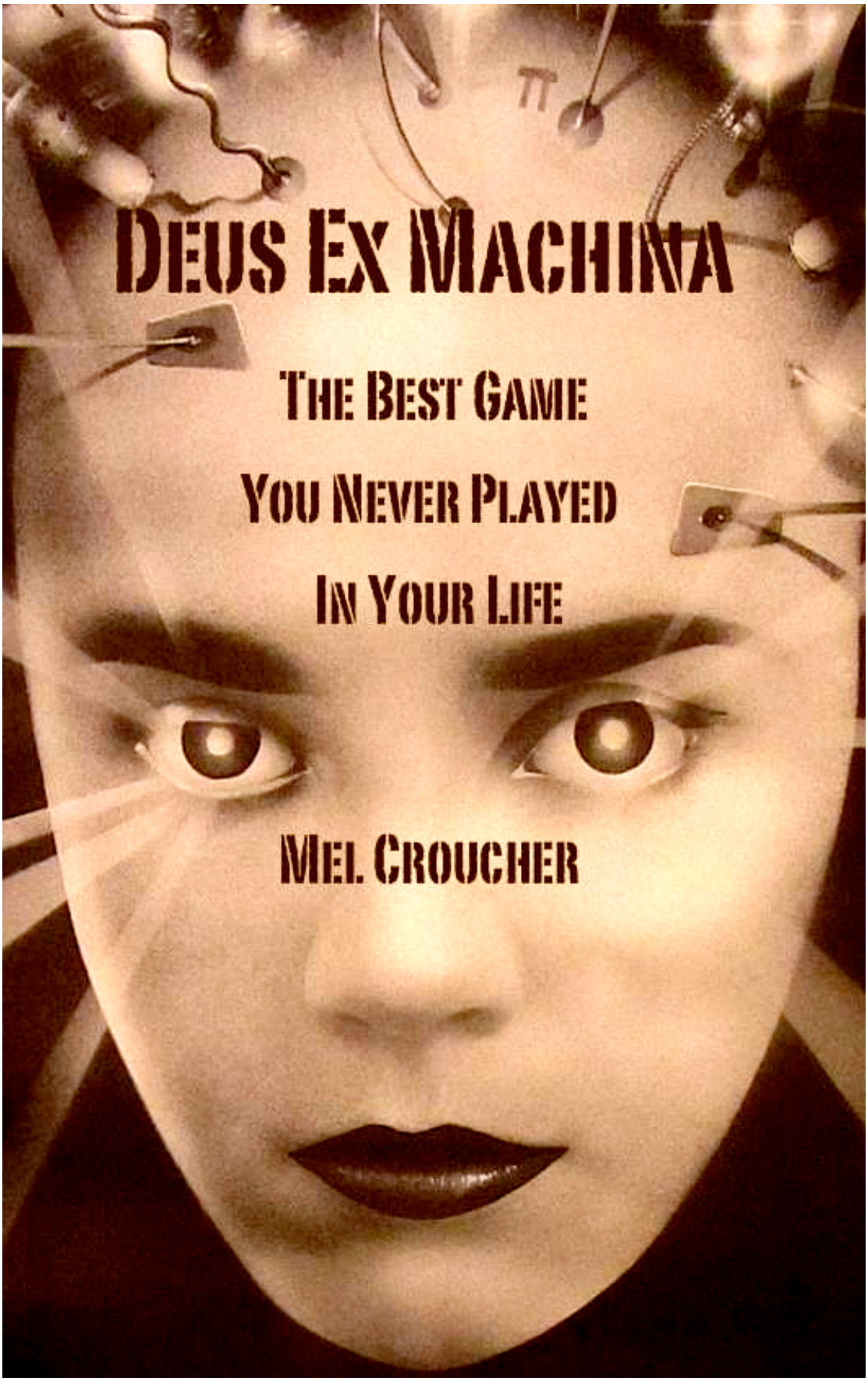

DEUS EX MACHINA
THE BEST GAME
YOU NEVER PLAYED
IN YOUR LIFE
MEL CROUCHER

DEUS EX MACHINA
THE BEST GAME YOU NEVER PLAYED IN YOUR LIFE

This is the story of a video game called *Deus Ex Machina*. Some players say it was the best computer game ever written. They reckon playing *Deus Ex Machina* changed their lives. It changed mine. First I wrote it, then it put me out of the business for thirty years, then it tried to kill me.

The ancients believed that everything in the heavens above and in the world down below is made from four basic elements. Earth, air, fire and water. When it comes to the ingredients of a video game, the ancients were dead right. There are only four elements in any video game that has ever been written. And those four elements are chess, dice, ping-pong and bunkum. Every blood-soaked shoot-em-up, all swords-and-sorcery twaddle, each tedious adventure and pitiful sports simulation, everything and anything that passes for computer gaming is a combination of these elements.

Which means that the video games industry, the biggest entertainment industry the world has ever known, is founded on the same rehashed ingredients, remixed and repackaged over and over again. In which case it also means that video games players are a bunch of suckers, duped into shelling out good money for the same bad experiences. All video games are the remixed and regurgitated ingredients of the strategies of chess, the throw of the dice, the hand-eye coordination of ping-pong and the confidence trick of bunkum.

Who says so? I say so. Who am I? I'm the founder of the British computer games industry. The guy who started it all. The Grand Wazoo. So as well as being the story of a video game called *Deus Ex Machina*, this is also the story of the founding days of the British computer entertainment industry. And, it was conceived not in a test tube, but in a pint mug.

CHAPTER 1
Genesis

The video games industry is the biggest money-making entertainment sector in the world. That's apart from gambling, drugs and pornography, of course. And the British video games industry is worth billions. It's bigger than music, movies, books and magazines. And I declare that I kicked off the British video games industry at zero cost, with zero investment, zero equipment, zero experience and zero planning.

The world's first commercial video games were mostly based on ping-pong, but it wasn't long before glowing rectangular ping-pong balls were replaced by little green space invaders, based on a mixture of ping-pong, chess and dice. Then some bright spark figured out that as well as little blobs of light, you could add tricks, and so bunkum was introduced.

So if this is the story of *Deus Ex Machina*, then it is essentially the story of computerised bunkum on a grand scale. Here goes then. Let's start with the conception.

I began in the 1940s when a clever refugee from Nazi Germany met a hard-working dockyard worker with a bicycle and tuberculosis in the teeming city of Portsmouth, the home port of the British navy, and bombed to bits by the time I arrived. They fell in love, got married and had sex, although probably not in that order. But the story of *The Best Game You Never Played In Your Life* begins on the morning of my seventh birthday, when there was coal in the scuttle, when Winston Churchill was still running the country through a haze of alcohol and dementia, and when I programmed my first games machine. Up until then, the whole world had been in monochrome, but I can remember my seventh birthday in flickering, muted colour.

My first games machine was a dangerous little metal sequencer. It had a keyboard colour-coded in toxic lead paint, designed to stunt the growth of us post-war baby boomers. My Mum and Dad had bought me a Sooty-the-puppet Xylophone. It was a very happy birthday. Instead of music, the Sooty Xylophone was supplied with little cards displaying rows of coloured dots, and the idea was to bash one colour-coded key at a time in the order each dot appeared. This was supposed to result in instant musical genius, a bit like the young Mozart, but adapted for a sociopathic glove puppet. Obviously the manufacturers expected all young Mozarts to wheedle their parents for a Sooty glove puppet to go with the xylophone, because they only supplied a single bashing stick, and glove puppets can only handle one stick at a time.

Instead of music, the Sooty Xylophone was supplied with little cards that displayed rows of coloured dots, and the idea was to bash one colour-coded key at a time in the order each dot appeared. This was supposed to result in instant musical genius, a bit like the young Mozart, but adapted for a sociopathic glove puppet. Obviously the manufacturers expected all young Mozarts to wheedle their parents for a Sooty glove puppet to go with the xylophone, because they only supplied a single bashing stick, and glove puppets can only handle one stick at a time.

The songs were child-safe and really banal, and those preprogrammed sequences soon began to bore me. Then, for the first time, I can remember thinking maybe I could change things. Maybe I could even improve things somehow by simple experimentation. So, slowly and methodically, I reordered the colour-coded xylophone keys into more interesting combinations, and wrote my own sequences of coded coloured dots. The result sounded like crappy little tin strips hit

with a stick in random order, which is exactly what is was. And although it was programming of a sort, I gave up computing in favour of the yo-yo well before my next birthday.

The story begins again a few years later, with a pianola that lived behind the kitchen in a little two-up, two-down terrace house, with an outdoor thunderbox and no bathroom. Pianolas were a sort of giant mechanical iPod for Victorians who didn't have the talent to play regular pianos, and they were very popular in the nineteenth century. By the time I tackled this ancient Aeolian upright grand model, the world was listening to music on the wireless, and pianolas were very unpopular indeed. In fact they were so unpopular that most of them had rotted. This was because the firmware that powered the keys was a matrix of rubber tubes which time had hardened and fractured like dead macaroni, so it wheezed like my Dad in the mornings. But the software that called the tunes was great. It was stored as holes punched into rolls of paper that tore and decomposed in sync with the British Empire. The grand old pianola was, of course, my first properly programmable computer.

That summer I had a square-ended metal hole-punch nicked from the Dockyard by my Dad, and acne. So I spent it in hiding, humiliating the pianola and forcing it to perform lewd acts of a musical nature.

Programming was simple. I got a roll of wallpaper and drew up a linear grid of eighty-eight squares times infinity, one square for each note on the piano keyboard and infinity representing time. If I didn't want a note to play then I did nothing at all. If I did want a note to play, then I punched a hole in the right place at the right time, ready for a dead macaroni rubber pipe to fart a jet of air through it. This released a tiny hammer onto the associated piano strings and played a pitch-perfect note.

The player-piano was powered by the kind of foot-treadles beloved by sewing machine operators and torturers, linked up to an air pump, a revolving drum, the dead macaroni rubber pipes and the hammers and strings of the piano. The harder I pedalled, the faster the drum revolved and the louder my mechanical music became. There was also a mystery brass lever, operated by a sideways jiggling of the inner thigh. The lever had a little brass plate with the word *Expression* stamped on it in an old fashioned font, and it had magical powers. It made my Dad use the expression, "Ferfucksake!", and it made my Mum use the expression, "Donnerwetter nochmal!" She wasn't being pretentious, she was just being German. It also made my younger, smarter sister the competitive spirit she is today. All three of them urged me to cease the bloody racket. Eventually that bloody racket made a guest appearance a few decades later on the intro of a song called *Pompey Rock* which uses one of my childhood punch-card boogies in the intro.

And that bloody racket was made possible by a simple computer program invented in 1801 by Joseph Marie Jacquard, to weave complex geometric designs in rolls of cloth and put a whole bunch of French weavers out of work, and eventually leading to the creation of the atom bomb, when Vannevar Bush used punch cards to control the calculations of the Manhattan Project.

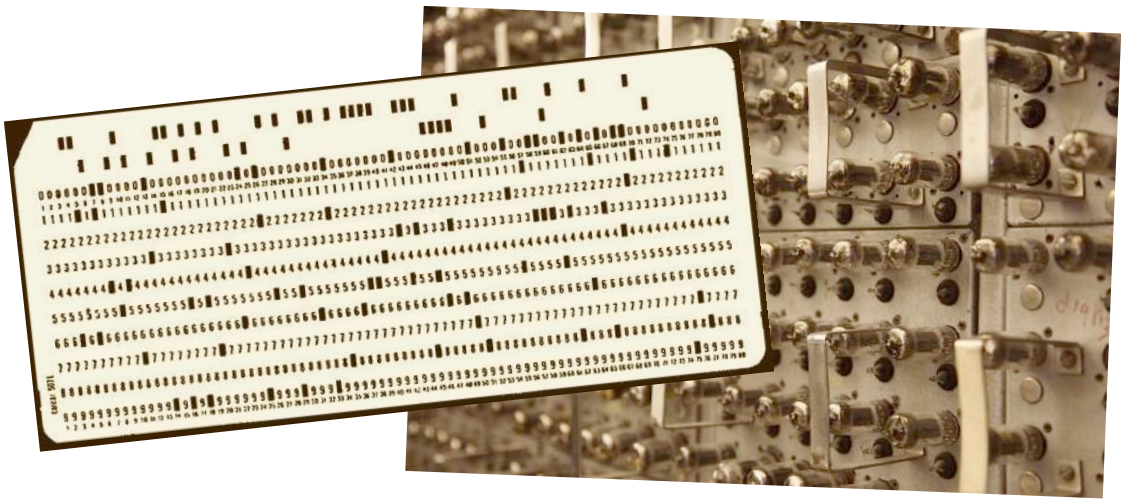
It was around the time I was failing to grow my first moustache, that The Beast came into my life. I think it belonged to the Admiralty, and it lived on the top floor of a concrete building called Mercantile House, because it had nothing to do with merchants and it wasn't a house. It was the administration block of Portsmouth Polytechnic.

Academically, I was what was known as a Sliding Genius. That is to say, I was extremely smart as a child, and could tackle most intelligence tests instinctively. Then, during my time at a public school disguised as a barracks, I became steadily more stupid. When I went out into the civilian world aged seventeen, my stupidity didn't seem to matter at all, but my old school did. It was time to talk my way into a profession, and seeing as my Dad was a lowly dockyard worker, nepotism wasn't an option. So my first step to a professional life was to get a degree. My mum told me to go to the library and read a careers book first, "And don't just read the As. The Air Force is dangerous, and Architects have to wear ties."

I parked my 98cc Hudson Villiers motorcycle near the library, next door to the polytechnic building. There was a lecturer who wore the snow white coat of a scientist, the wire-frame glasses of a philosopher and the lipstick of a courtesan. She stirred my loins, and the only way I could get close enough to sniff her was to register for her class. She taught the brand-new discipline of computer programming, but I wouldn't have

cared if she had taught Swahili. I enrolled on her course. She tamed The Beast. Her name was Franny. For some reason we students called her Miss Crunt.

The Beast was as big as a bus and as daft as a brush, and I could walk around inside it to feel the heat coming off serried ranks of little glass valve things. And so it came to pass that when I got my hands on the most powerful computer known to civilian science, I knew just what to do. Programs were written in a language much less complex than the 88 variations and expression-lever of my pianola, and the computer code was stored as little holes on punch-cards. I knew I could confuse the hell out of The Beast, and there was no question in my mind as to the true purpose of giant electronic brains. Just like the Sooty xylophone and the pianola, they had been created to entertain us. And sure enough, after six months of applying mascara to my nascent moustache, sniffing the aura of Miss Crunt, and programming The Beast, I got the giant computer to beep *Twinkle Twinkle Little Star* in sync with a flashing light bulb.



When I presented my work to Miss Crunt, she took off her wire-frame glasses and blinked at me like a myopic lecturer in computing. Next she opened her wanton red lips, revealing a fascinating line of drool between her upper and lower incisors. And then, the little minx, she closed them again. In fact she was so overcome that she was completely lost for words. Apart from two.

It seemed that being a computer programmer was meant to be a serious business, with no room for mucking about. If I wanted to muck about and get paid for it then I would have to become something else. So I took Miss Crunt's succinct advice and forgot all about computers, went off to be an architect, marry a Worker and raise an Irish Setter.

Although it took six long years to qualify as an architect, my studies coincided with everything the Sixties had to offer on the

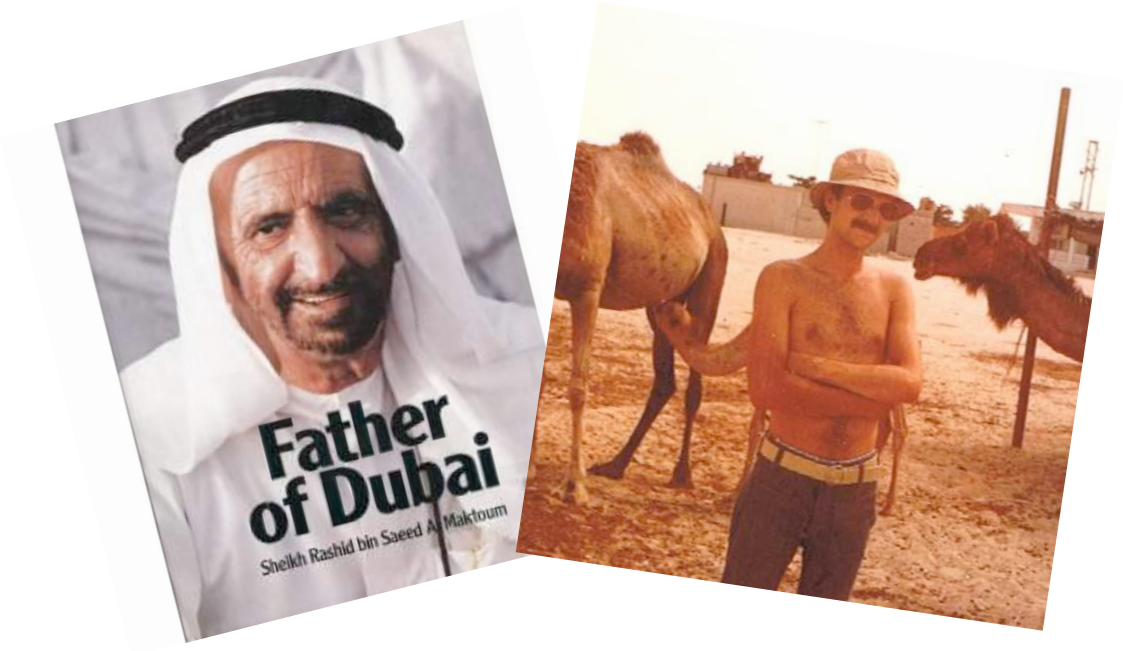
extracurricular side, and I invested a lot of time in them. Much of my energy was spent on growing hair and playing six-string bass guitar in the Ice Cream Yak Band. Then there were wars to end, buildings to occupy and happenings to happen. When the news came that I had scraped through my Diploma in Architecture, we were living in a caravan on a beach in fascist Spain. The Worker Who Married Me was teaching English, the Irish Setter was begging for proper food and I was playing my part in the crime against humanity known as Benidorm, sign-writing and hustling. Consequently, when I was professionally released into the wild, I was a very green architect. Not green in the sense that I used recyclable materials and wind-power, but green in the sense that I didn't know what I was doing.

By the mid-1970s the British economy was in recession and work had dried up for very green unemployable architects like me. So I was forced to seek refuge further overseas and wheedle my way into the patronage of the first despot who would have me. His name was Sheikh Rashid bin Saeed al-Maktoum and my job was to build him some prestigious structures in a little desert backwater that he inherited in the traditional manner of historic assassination and sucking up to the British aristocracy. The little desert backwater was called Dubai. And they had just struck oil.

All I really knew about my new home was that Dubai had been called the Pirate's Coast since the Victorians bribed their way in with a treaty to keep Ottoman tax collectors out. Before the oil wealth started to flow, the main source of income had been smuggling, so all in all Dubai sounded like a good bolt-hole to beat the UK recession. While I was reprogramming my Sooty Xylophone, the entire population of Dubai was still living in traditional barastri houses made from palm fronds and mud, and it wasn't until 1956 that they constructed their first concrete building. I turned up twenty years later to build five tower blocks for a guy who named the development after himself in the main street of town, also named after himself. It didn't really matter what my structures looked like, as long as they were bigger than those built by the next sheikh down the road, and the bathrooms had gold taps.

There were no trees in Dubai, but if there had been, money would have grown on them. I found myself responsible for more than two hundred people and a budget of eight million pounds, and I was busking it. Apart from a few local Gulf Arabs, we were all economic migrants, but conditions for the labour force were inhuman. Mostly they were

shipped over from Tamil Nadu, and were ordered in bulk along with the cement and steel. They lived in packing cases and containers and took a shit where they could. It was obvious that some had never set foot outside a village before, let alone worked on a building site.



It wasn't that I was a very bad architect, just that I was a very bored architect when it came to repetitive tasks. People kept turning up to work on my building sites and getting lost, seeing as how there were no town maps of Dubai, only aerial photographs used by the protectors of freedom, democracy and western oil interests. And I was getting bored drawing home-made maps for them, and telling them where to find useful things, like a reputable trader, or a disreputable nurse. The nurses from the leprosy ward were usually available for spontaneous intimacy, but it was a bugger trying to find their residential huts without a map. Anyway, I persuaded a passing reconnaissance pilot to sell me a copy of the most detailed aerial photographs that existed, and produced what turned out to be the first detailed civilian map of Dubai. Soon other contractors and suppliers were asking if they could use my map for their own new arrivals.

I went to the town's only printer to run off a few hundred copies. A small man with smiling teeth and worried eyes, and like most of us temporary inhabitants, he was in exile. In my case from *Save Your Kisses For Me* by Brotherhood Of Man, in his case from the civil war then raging in Lebanon. He asked if he and some of his fellow exiles could advertise on the map and maybe try and drum up some business from the new arrivals. I agreed. In fact I took it a stage further. Within a month I had found a malformed American crook to sell advertising space all over

my maps, and I also recorded an audio guide on cassette for the hard-of-thinking to find their way around Dubai.

The idea was that English speakers would be force-fed the map to help them navigate the wild frontier, as well as the cassette to play on their in-car stereo system. Instead of music, the cassette took them on a turn-by-turn guided tour of the pirate stronghold of Dubai, stopping at the haunts of all my advertisers. Compared with the money the Sheikh was paying, my multi-media guides made very little, but I was no longer bored. The fact that the money the Sheikh doled out was tax-free and in cash gave me the safety net to quit his desert kingdom and head back to Britain. At the ripe old age of 29, I was done with being an architect. I was in the multi-media entertainment business.

The Worker Who Married Me had been teaching English to groups of men with multi-coloured beards and surrealist headware, and when we arrived back in the UK we had the notion to enhance my new multimedia business and her teaching career by becoming failed antiques dealers. I would go and buy things I liked, such as wax-cylinder phonograph machines and vintage typewriters, and spend lots of time repairing them for sale. Then she would calculate the hours and effort involved and tell me how much loss I had made. It was an interesting business model that I would use again in my video games career. By the time she brought home an educational brochure about an electronic brain in a tin box from her place if work, I was ready to roll. This little computer was the size of a suitcase and it didn't use punch-cards for storing stuff, it fed on magnetic tape! What's more, the tape was housed in standard cassettes just like the ones I had used for my Dubai travel guides.

The Commodore Pet was launched in January 1977, and by October it had made the front cover of Popular Science. It looked just like the futuristic sci-fi machines we were all familiar with from Star Trek, even though the casing was made of the same crappy tin as my Sooty Xylophone. The designers were deluded into thinking it was for business, or research or some sort of academic use, and although it was claimed to be a "home computer" it was priced at a hefty $795, and that was way too high for any normal home. But viewed through the eyes of the Dubai oil boom, it was an irresistible bargain.

The Commodore Pet was blessed with 4 kilobytes, as much memory as The Beast that Miss Crunt had let me loose on. But instead of occupying the entire floor of a concrete block, I could sit in on the dining room table. The coding language was something called PET BASIC. In order to confuse regular folk, computing seemed to have evolved its own jargon. You couldn't write a simple instruction like, "make the white blob go up the screen until it hits something." You had to mask simple ideas with arcane expressions which sounded like a menu in a Welsh brothel:

spreadsheet, nibble, byte, peek, poke, RAM. It took a while to master this new language, but after the first few days I found myself enjoying the electronic creative act much more than the failed antiques business.

I founded my multi-media company Automata on November 19th 1977, and some say it was the first leisure software company in Great Britain. I'm not certain about that, but what I do know is that I immediately followed in the footsteps of the great pioneers of electro-mechanical entertainment, by creating stuff for an audience that didn't exist. Everyone was talking about computers, but nobody actually owned one. Ignoring this fact was a handicap, but historically I was not alone. Thomas Edison thought his phonograph was for recording the last will and testament of illiterates and vain people. He totally failed to realise that he had just given birth to the recorded music industry. Alexander Graham Bell thought his telephone was for transmitting symphony music into the homes of rich folk who were too riddled with pox or bone idle to hail a cab to the concert hall. The Theatrophone company signed up hordes of subscribers including King Louis the First of Portugal, before anyone spotted the fact that telephones were not best suited for concert music but were very handy for voice communications. And it wasn't just the pioneers who cocked it up. A century later, cellphone developers completely missed the appeal of text messaging for an entire generation.

As for me, I wallowed in my ignorance and never once questioned my belief. I knew for certain that computers were for people to play games on. All I had to do was find those people. The trouble was, the UK

video games industry was restricted to *Space Invaders* machines in pubs, usually plugged in to a spare socket by the toilets, and I didn't fancy hanging around stained porcelain asking people for their names and addresses.

Arcade machines may have been the growth leisure industry outside the home, but inside the home it was commercial broadcasting which was the game-changer. My little sister was a newsreader at the local commercial radio station, Radio Victory, which had begun broadcasting in the October of 1975, and it turned out that her new boss was someone I went to school with. Paul Brown, a canny man who eventually got a Commander of the British Empire badge off the Queen for services to radio as Chief Executive of the Independent Broadcasting Association.

Using a combination of desperation and the fact that we once played mother and daughter in the school play, I went to him with an idea. He didn't think it would do lasting damage to his reputation, and was kind enough to let me broadcast computer data over the AM and FM wavebands after regular broadcasting hours. My idea was that sizeable numbers of computer owners across the South of England would receive my signals through their radio sets and get so excited by the concept of computer entertainment they would want to contact me. Then I could try and flog them some games.

We broadcast my first on-air video game on the 257FM waveband in the wee small hours of December 15th 1977. In later broadcasts we also used the 1170AM waveband. Either way, an audio signal carrying computer data sounds like your radio set is having a seizure, so we had to top and tail the coded signals with an enticing prize competition to try and stop my audience switching off these bizarre nocturnal emissions. And so the concept of the prize computer game was born.

It was hard work for the newly computer-savvy radio listener. First of all they had to stay up way after bedtime and record the signal off-air onto cassette. Then they needed to link their cassette player to a home or

office computer and play the primitive code so the machine could hum along. After a minute or two the program would load, and if it had not been corrupted during transmission, clues would appear on screen. Only then could the patient listener in commercial radioland play the game, solve the clues, phone up the radio station and make a claim for a crummy prize.

After the first broadcast we got three responses. But by the end of a season of hit-and-miss transmissions, the number of listeners with access to a computer was beginning to grow, and I got a mainstream evening slot sponsored by Whitbread, manufacturers of the fifth-worst beer in the land. My show was called *Whitbread Quiz Time* and it was broadcast at an ungodly hour every Thursday night. I had produced a hybrid radio pub quiz and on-air computer game. And I found myself midwife to a new branch of the entertainment business.

I was also getting to learn about my potential game-players, because I could meet them during the weekly recordings in their natural, alcohol-sodden, nicotine-stained habitat, bribe them with the fifth-worst beer in the land, and get some genuine feedback on my primitive games. Amazingly, many of them declared that what they would like to play coincided with what I wanted to produce. Essentially it was stuff that credited them with some intelligence, stuff that rewarded them for investing a few minutes play-time and, above all, stuff that was funny.

By the time Whitbread wised up and withdrew their sponsorship, the players were no longer in it to win it, they were tuning in to discover what anarchy had been sneaked in to the clues, complicit in the knowledge that the Independent Broadcasting Authority had absolutely no idea what was being broadcast under the guise of audio computer code. I often wonder if terrorists, criminals and spies ever cottoned on to the concept of transmitting subversive messages in binary code using a home computer and sending them anywhere in the world down the line.

Of course I couldn't make a living out of a weekly interactive quiz game, no matter how much daftness was injected, but I also had a modest income from the multi-media idea that began in Dubai. More importantly I had a little team of underpaid but happy workers producing maps, advertisements, magazines and audio travel guides on cassette, sponsored by the good, the bad and the downright ugly.

By the time the British home computing boom exploded, we had already produced two dozen video games and my ready-made team hardly noticed the transition. We were all paid a pittance, plus beer,

which was classed as software. We knew next to nothing about programming and even less about marketing. And the electronic world was our oyster.

The original Automata team, left to right, Robin Evans (art and design), Mark Bardell (words and research), Mel Croucher (making things up), Christian Penfold (sales and advertising), Geoff Roberts (technical stuff).

CHAPTER 2
Automata

Between 19th November 1977 and All Fool's Day 1985, Automata produced around sixty-five computer games, and I insisted on three rules for all of them. The first rule was that they were non-violent. The second rule was that they parodied ordinary games to make players laugh. And the third rule was that they included audio tracks as a bonus to the gameplay.

The Automata logo was designed with a nod to the 1899 painting by Francis Barraud of his brother's dog Nipper listening to an Edison phonograph, *His Masters Voice*. To put it in keeping with our slogan, "there's no blood in our games, it's Automata sauce", I used a tomato instead of a phonograph, and the cute little dog became rusty clockwork, but even so I received a letter from HMV's lawyers threatening to sue. After careful consideration and a consultation down the pub with a bloke called Rodney, who had once failed a solicitor's clerk exam and so knew a thing or two about the law, I responded with a nicely typed letter saying "Fuck Off", and never heard from HMV again. In the future there would be more law suits from global sharks trying to intimidate us feeble minnows, as will be revealed.

When Automata started, our games used one kilobyte of memory each, because home computers didn't have any more juice. Today, my standard mobile phone packs a punch 32 million times more powerful, and the data arrives invisibly through the air. Back then our data was loaded into a primitive home computer from an audio cassette recorder, and we duplicated our stuff by hand on a four-way deck at eight times normal speed. It may seem antediluvian today but it was state of the ark then, and we were able to turn out forty or fifty copies of commercial computer games an hour, complete with self-adhesive labels and fancy cassette sleeves.

The thing about audio cassettes was they had two sides, and the thing about computer data was it only needed to be recorded on one side of the tape. So what to do with the blank side? I reckoned the obvious thing to do was record little audio scene-setters and comedy sketches to enhance the gameplay, but after the first couple of years I gave each Automata game its own theme song, and stuffed the songs with references and clues to the games. This would be called transmedia sometime in the future, back then it was called economising.

We couldn’t afford studios or musicians, but that wasn’t the real reason I ended up performing everything myself on those cassette backsides. The real reason was because I enjoyed it, in fact I enjoyed it a lot more than writing lines of computer code. I was a weak musician and a crap singer, but I multi-tracked everything and edited out the bum notes before force-feeding my stuff to anyone who’d listen.

It was good to discover that the players of Automata titles not only wanted more games and more music from us, but they also wanted to make direct contact with the Automata team. For some of them, we became an important part of their lives. But it was a surprise for me to discover who these players actually were.

The maxim "know your audience" is a basic prerequisite in the entertainment business. Without this knowledge an entertainer is wasting everybody's time. Back in our radio days of the 70s, I knew exactly who my audience was. They were adult, nocturnal, erudite and living in the South of England. And I treated them accordingly. But if we were to meet in the street, then we would have had absolutely no notion that our common link was that of games-maker and games-player. But when the British computer boom arrived, so did micro-clubs, micro-fairs and micro-fests, and we got to meet the Automata games players in the flesh. They were smaller than I had expected.

Unlike my remote radio audience, I found that I was no longer writing games for adults, but for players that included a great many children from different locations, backgrounds and cultures. I was not at all inclined to change the stuff I wanted to produce, so there was only one course of action open to me, and that was to treat the little sods as equals. If they didn't quite understand some of the adult themes, and if they didn't quite pick up on the historical references or wordplays, then I reckoned it was better for them to float to the top of my pond, because I was certainly not going to meet them at the bottom. It was good to make them laugh, but it was equally good to make them think.

Some of those children would come back into my life thirty years later, and change it for the better. But in 1981 I had no reason to know who they would grow up to be or what they would grow to achieve, and neither could I suspect how catalytic they would become.

It did not take very long for the nascent video games industry to start spoon-feeding children variations on the theme of killing anything that moved, and my unease with simulated violence grew. If I wasn't prepared to make professional compromises concerning my players then neither was I prepared to ditch my civilian hobby of non-violent direct action against assholes. And if this involved force-feeding agit-prop propaganda to kids then I had absolutely no problem with that. It would not take long for other games-makers to lower the age of mental cannon-

fodder from eighteen to eight, so if I was waging a one-man war against computerised violence then I reckoned the rest of the industry could take it.

To tell the truth, the rest of the British video games industry didn't amount to very much at the time. It may have grown out of its cradle, but it was still crawling around the nursery.

In the summer of 1978, a Liverpudlian accountant called Bruce Everiss had opened the Microdigital shop in Brunswick Street, and began to sell exotic computers from America with weird names like Apple II and TRS-80, alongside sweet little self-assembly jobbies developed this side of the Atlantic.

But it was the arrival of the British designed ZX80 home computer that was the real game-changer. A couple of years later, some of Bruce's employees and customers got together to set up the Bug-Byte outfit, which specialised in computer gaming, and at last Automata had some company as well as some competitors as a few others set up to join in the fun, and try to make a living out of this new form of entertainment.

Bruce himself became operations manager of the highly-successful Liverpool outfit Imagine. Although I suspect the name was not so much a tribute to John Lennon as a tribute to the way Bruce treated his accountancy. Ten years later he would be reduced to asking me to write and perform topical computer jokes via a premium-rate phone line, and I would be reduced to accepting. He would pay me thirty-five quid a throw, and sometimes he would not pay me at all.

Much has been written about Clive Sinclair and his Z80, ZX81 and Sinclair Spectrum micro computers, and I have no intention to add more here, seeing as I only met him twice. The first time I told him that his machines were toys for playing games on, and he responded by looking at me in the same way Miss Crunt had done years before, only without the drool and the lipstick. The second time was at a party, when I didn't talk to him much because he seemed to be talking to himself and putting on a melancholy performance of shy-man-dancing. Best not to intrude. Whatever the case, without Clive Sinclair the success of the British computer games boom would never have happened.

By 1981 there were a handful of computer games producers in the land, and we could all fit into one scout hut and share a taxi home. That's not a metaphor, that's a statement. At the start of the following year there were still less than a hundred of us, but by the end of 1982 we numbered around 460 with 1,200 titles competing for a slice of the market, and the media had begun to take notice.

Dorothy's Wool Shop becomes Automata.
The Sinclair ZX80 launch advert.
Some things caused by Bruce Everiss.

As for Automata, we were still happily producing holiday guides in print and on cassette, as well as a few radio magazines, when our first proper commercial success in video gaming happened by accident in 1981. It was the result of a bulk buy of low-quality C30 audio cassettes used for recording our audio guides to tawdry tourist destinations. C30 meant that the recording time available on each cassette was fifteen minutes a side, so I reckoned I could get rid of our stockpile by filling them up with as many games and audio entertainments as possible and flogging them cheap. The result was a compilation tape called *Can Of Worms*, packing in eight games and eight comedy tracks for the grand sum of £3. We had no overheads or business sense, and we sold them mail-order-only direct to the players, so our competitors simply could not compete at that volume and that price.

When the first games software charts began to appear in the early computer magazines, we found ourselves among the best-sellers, which was nice, and soon we were headed for the top of the heap, which was very nice indeed.

There are seeds of *Deus Ex Machina* in that very first success, particularly in the pathetic game called *Acne*, which encouraged the squeezing of facial zits as they erupted. I used exactly the same concept more than thirty years later for *Deus Ex Machina 2*, as will be revealed later in this book. Other titles in the *Can Of Worms* compilation involved The Prince of Wales blocking the palace sewers with his own excrement, dyeing Ronald Reagan's hair to prevent him starting a nuclear war, and popping a whoopee-cushion under Adolf Hitler to give him a heart attack. And so it was that the first big Automata hit was a rag-bag of peurile, simple stuff, offering instant gratification to the non-discerning player with a few minutes to spare and three quid in their pocket.

Soon it was like receiving a Sooty-the-puppet xylophone for my birthday every day, and we found ourselves competing to arrive at work first, for the pleasure of unlocking the oversized silver letterbox. Our daily presents from the games players included money and little thank-you letters, so as a reward to our fans we increased the price of the next compilation tape from three quid to a fiver.

I called the second album of games *Love And Death*, and it featured several forerunners to *Deus Ex Machina*, including the sperm race of conception and the birth sequence, as well as a rather gentle but inevitable death for the player. For the third compilation, I distilled *The Bible* to eight games of 1K memory each and heard the first industry rumblings to the effect that I was economically if not mentally insane.

By now, almost all of the programming was being done by Christian Penfold, a used-car salesman who had started off selling advertising on our multi-media productions. I soon discovered that

Christian was dyslexic, and like many of his ilk he had an unknown and untapped natural talent for programming. It used to drive me nuts when he misread and misused Sinclair BASIC terminology, but it didn't matter at all because he always came up with the goods using a process of osmosis. And best of all, he loved turning my daft ideas into programs a lot more than I did. Sometimes he would work through the night until he could save a finished game, for fear of losing the work in progress. Quite a lot of unfinished software went missing back then, usually when my dog wagged a cable loose, or when Christian introduced the cassette recorder to the steaming contents of the electric kettle.

When I labelled Automata titles as "adult", "censored", "over-16s" and "over-18s", I was taking the piss, knowing full well that the greatest attraction for a youngster is to indulge in something perceived as out of bounds. And when I was challenged, my arguments in favour of Automata games and against war games were well-rehearsed. I trotted them out at every opportunity, from *Woman's Hour* on the BBC to interviews in *The Sunday Times* when it was a respected newspaper before Rupert Murdoch got his claws in it. And what I said could be boiled down to this: "Would you rather your children played games that encourage them to kill or to kiss?"

One Monday morning in December, after the first coffee had been poured and the first Frank Zappa album of the day had hit the office turntable, the phone rang and I took a call from Laurie Manifold, three years away from retirement as the investigations editor of *The Sunday People*, a gutter-press newspaper with a huge circulation. The resultant firestorm taught me the most valuable lesson I have ever learned in marketing a business. Never be the subject of a news interview, always write it yourself. And apart from that, the publicity was brilliant.

In the "Storm Over Sexy Home TV Games" feature which resulted, I was portrayed in the national press as a purveyor of pornography to children. An electronic child-molester. I had been in the papers before, but never branded as a criminal. Well, only once before, when I appeared in the listings of court convictions for letting my dog shit on the beach.

The accusation that Automata was a depraved cess-pit of adolescent corruption became a contentious subject, and was taken up by Dr. Oonagh McDonald, a Labour Member of Parliament. Questions were raised in The House Of Commons concerning the dangers of this new video games phenomenon that was sweeping the country, and I was determined to state my case to her.

It was soon apparent to both of us that we were on the same side, and fuelled by a mutual loathing of the gutter press and a desire to spike the guns of violent video games, we formed an unlikely alliance, mostly over the phone, which was a challenge for Oonagh because she was deaf.

But a lot of other people were tuning in loud and clear, and Automata was now a household name in the growing number of households that knew what video games were. Then, on April 23rd 1982, the Sinclair Spectrum was launched, and Automata was poised, ready, willing and able to take a crack at making a little bit of gaming history.

Clockwise from top-left:
Christian Penfold with Rory the Irish Setter, Automata advertising, the wick'ed Mel Croucher, a nation corrupted by 1K of monochrome evil.

CHAPTER 3
The Golden Age

For a while, Automata was the top-selling video games company in the land. A handful of waifs and strays came through the door to contribute and then left again. Dedicated people joined up to help with the magazine and audio guide side of things, and then they left. But in essence Automata as a games company only ever consisted of five oddly assorted people. An escaped architect, a cartoonist, a used-car salesman, a single mum and a schoolboy. To tell you about our differences will take a little time, but our similarities can be summed up in a sentence. The one thing we had in common was that we had no experience of the video games industry, because the video games industry had just been born.

It gives me a twisted mouth to see university courses offering the deluded students of today degrees in daft gaming disciplines with names like Ludic Interfaces, because I know from experience that what such training does is dampen imagination, stifle creativity, avoid risk-taking and never question a norm. Automata was all about letting the imagination and creativity run riot, taking risks and never to stop questioning what others were doing. It was our greatest strength, and it turned out to be our greatest weakness.

So, what is a Ludic Interface anyway? Here's what today's university prospectus says:

"Ludic interfaces are playful interfaces; the term refers to devices like the Wii console, unconventional musical instrument controllers, and game art devices; Ludic interfaces take the best from computer games, interactive media, media conversion, social networks and modding cultures and result in tools that offer an ease of use and playfulness to cope with a rapidly changing society."

This presupposes that video games companies need someone who has spent at least three years studying bollocks, because they are better than someone who has not, or any more valuable than a Chinese programmer who can knock out stuff for a tenth of the price. It also presupposes that centres of education are up to date with the sort of things gamers actually want to play, and can predict what will be happening in the near future. This is an impossibility. By the time some half-witted academic designs a course, gets it on to the curriculum and turns the handle on the student sausage-machine, the video games industry will have moved on. My local university offers a three year, full time, Bachelor of Science Honours Degree in Computer Games Development,

as well as a post-graduate Masters Degree in Ludic Interfaces. Well whoopie!

When I started out in this business, I would receive dozens of job applications from enthusiasts, many of whom went on to do some amazing stuff. But since the corporates waded in and the universities rolled over and exposed their fee-based bellies, I now get job applications from puffed-up hopefuls without an original idea in their heads, duped into thinking that what the world needs is a Ludic Interface graduate. More often than not their job applications are remixes of banalities scraped off the bottom of a standard document barrel to include the claim of excellent communication skills, which translates as "I am a deluded, lazy bastard who cut-and-pasted this paragraph."

Here's how the escaped architect in the earlier chapter gathered the cartoonist, the used-car salesman, the single mum and the schoolboy to his bosom, and how they turned Automata into the nation's best-loved, least-sustainable software house.

THE CARTOONIST

For the first two years of Automata, I did all the artwork myself. It was not brilliant, but as an escaped architect I was at least drawing to scale. I typeset using an IBM golfball machine, and I also used rub-off lettering left over from my days at the drawing board. I actually paid to advertise our titles in the first computer magazines that hit the shelves, before I worked out that journalists are essentially lazy folk, and if I supplied them with cartoons, features and editorials then I could get Automata games promoted for free. I drew all the graphics for the magazines and cassette inlays, and I cobbled together the cartoons for the adverts. I tried to fool myself that my skills were up to it, but by 1979 I knew I needed a graphic artist genius. His name was Robin Evans, and when I found him, he was a washer-up in the kitchens of a holiday camp on the Isle Of Wight, which is a sort of British Alcatraz, only with more hedgerows around the prisons.

One damp morning I was taking coffee at the printers, waiting for the first proofs of some artwork to come rolling off. They used an antique cast-iron Heidelberg press, and the smell of fresh ink was heady. The previous client's job was stacked up on a pallet over in the corner, and when I flipped over the first couple of sheets I felt equally impressed and worried by what I saw. The cartoon images were semi-pornographic, but executed with a weird innocence. They weren't particularly funny, but they were beautifully drawn.

"Who did these?" I asked the printer.

"Bloke called Robin. Feckin loony." he replied, "but feckin cheap."

"Have you got his number?"

"Ain't got a feckin number, feckit. We rings the feckin pay-phone in the feckin camp where he feckin lives, fecker."

It was September, when the holiday camps emptied and the prison camps filled on the Isle Of Wight, and the perfect time for a man in his twenties to decide to become a full-time professional artist.

When I first met Robin Evans he came over like a younger version of the American cartooning genius Robert Crumb, only more English. He wanted to create fantasy artwork for love, but had been forced to create mildly erotic pap for money. And he was indeed feckin cheap. I liked him immediately. I even liked the way he spoke, in cartoon speech bubbles. And from that day to this we have never stopped working together. What I do is think up daft stuff, and what he does is bring it to life and make it better, more accessible, funnier. One of our titles has now been going for three decades, which makes it the longest-running continuously published computer cartoon strip on the planet. That says something about the fact that computers and gamers are intrinsically funny, and it also says something about the way Robin and I work together. I invest my time writing scripts and drafting ideas which I send to him many miles away. He pretends to take notice of what I want, then goes and does what he likes instead.

Left: The Cartoonist in the 1970s
Right: The Cartoonist today

These days Robin Evans has evolved into a bit of an old cult, with some highly collectable sci-fi and fantasy work under his belt, but although the ageing process has turned his beard grey on the outside, on the inside he hasn't changed at all since that first day. He still talks in

cartoon speech bubbles, complete with sound effects. His thoughts get generated at twice the speed of normal folk, which results in him speaking a sentence ahead of himself. It's like the doppler effect with added jokes. Sometimes, when the process goes into overload, he tends to fall over backwards. I've never managed to catch him yet.

It wasn't until after he joined Automata that I discovered Robin continually generated mess and debris, and turned the office into a cross between a kindergarten and a terrorist attack. I bought a more powerful vacuum cleaner and stronger rubbish bags but it did no good, so in the end I erected screens round him.

THE USED CAR SALESMAN

When Automata started I had already admitted to myself that I was not very good at business, and I knew Automata needed a professional to handle our sales if we were ever going to make the big time. It was all very well for me to think up ideas and then try to sell them, but I found the financial bargaining awkward. I liked to please the people I did business with, and I didn't like offending them by asking for too much money. They were understandably enthusiastic about my methodology. That's why I was not very good at business.

Unfortunately, there was no such thing as a professional video games salesperson when Automata needed one, because it was still far too early for anyone to have had real experience in touting video games. So it seemed natural to recruit from a repository of smarmy, ruthless bastard salesmen. I asked Robin Evans for advice.

"We need a smarmy, ruthless bastard salesman. Do you know any estate agents or used car dealers?"

"Eek! Do I? Sure do!" He tottered backwards and sprayed speech bubbles at the walls all about some guy he had met who had had a vasectomy and a divorce and grown a beard and sold used cars.

"Great. And is he a smarmy, ruthless bastard?"

"Crikey no! But ..."

"But?"

"Yikes! He's as desperate as we are for money!"

And that's how Christian Penfold joined Automata, all thanks to my new-found cartoonist friend and my ongoing quest to pay as little as possible. When Christian Penfold took the helm of our business strategies he steered us toward all sorts of new directions, at first navigating rapid success, and later aimed squarely at the rocks. But during those few years he took us on a wild ride, and wild rides are often as enjoyable as they are scary.

And throughout that time I had complete trust in Christian, and that was because he had no guile, no false faces and no masks. What you saw

was what you got, and I loved that in him. He was, of course, completely bonkers. There was a sort of autism in his sales technique, because he said exactly what he thought without any regard to the consequences.

There was an incident at an awards ceremony where he told the entire nascent computer industry exactly what he thought of them, ending with the invitation to stuff their trophies up their arse ends. There was another incident when we were approached by gangsters who reckoned they would like a slice of the new business we were carving out for ourselves, and Christian told them to take a banana enema. I was terrified by his methodology, and at the same time I was intrigued that he simply couldn't see the danger he was courting. But on the plus side there were too many incidents to count where he was utterly charming, and managed to sweet-talk his way into the pocket books, piggy banks and loose change of the newborn video games nation. About three years after he joined us, he sweet-talked me into making him a partner in Automata, and the die was cast.

The truth is, we were polar opposites in our beliefs, our politics and our loyalties, Christian and me. A generation earlier, if we had followed our principals into the Spanish civil war, he would have swaggered for Franco and I would have been cringing for the republic. But he would have given me his last drop of water when we found ourselves wounded in the same ditch. He was one of the kindest people I ever met, and one of the most irritating. I even wrote a song in his honour, that got released on one of our albums. The opening verse went like this:

Down at the Ally Pally, up upon a table,
Wearing bright pink trousers, ever so unstable,
Flogging off his bargains, no time for a wee-go,
It must be Christian Penfold in his alter ego,
Hurling friendly insults and acting very jolly,
He's the reason we all come here, he's the Ally Pally Wally.

A Wally was an affectionate slang term for a buffoon. The Ally Pally was the popular name for the mighty Alexandra Palace exhibition hall in North London, where a series of glorious video game trade fairs called ZX Microfairs was organised by Mike Johnson, a larger than life figure with a beard and a heart condition. There were probably too many beards involved in the early days of UK computer gaming. And too many heart conditions. Mike died young, along with much else.

Christian was never sure about the "ever so unstable" line of that song lyric, although he loved to play the track at parties for years afterwards. When I was asked by others if I meant he was mentally unbalanced or merely wobbly when he got off the ground, I would reply, "yes". Anyway, most people's abiding image of Christian Penfold will be of him wobbling wildly up on a trestle table, ranting at the trade fair

crowds like a demented fairground barker, insulting them, extorting them, throwing packaged software at their heads, and all the while clad in a skin-tight pink romper suit with his privates on parade. The crowds loved every minute of it, and so did he. As for me, I used to nail on a smile and make the best of it.

Left: Christian Penfold at a ZX Microfair with organiser Mike Johnson
Right: decades later at Mel's 60th birthday, still wearing that sodding pink jumpsuit

THE SINGLE MUM

And so Robin Evans and Christian Penfold helped turn Automata into a real business, until the telephone kept ringing, the post box kept delivering, and the telex machine kept spewing. We were inundated, and we needed a secretary to deal with the inundations. Several came, and several went. The good ones moved on to better things, the hopeless ones were asked to leave. They were mostly school-leavers. There was one young somnambulist who we watched in amazement as she stuck postage stamps upside down on to a huge pile of mail-order envelopes. When Christian asked her why, she pointed at the sheet of 144 stamps in front of her. It was upside down. She was also afraid of the vacuum cleaner, and when it was her turn to hoover the office she would retire to the toilet, so I had to do a double hoover shift myself. We put an advert in the local paper for a replacement.

When Lady Claire Sinclive answered the advert we breathed a sigh of relief. As soon as she stepped through the door it was obvious she was no school-leaver. In fact it turned out she was born not long after World War Two. It was Robin Evans who named her. Actually, it was Robin who named all of us. He was Gremlin, Christian was The PiMan, I was Uncle Groucho and our new recruit became Lady Claire. She said she had

been out of the workplace for some while, to concentrate on marriage, children and divorce, and she admitted that she was not the most confident woman in the world and was scared at the prospect of getting back into the world of work. My first thought was that she had the same colour red hair as my Irish Setter, so as far as I was concerned, she was fine by me.

"OK," Christian lolled and rolled himself a cigarette as Lady Claire looked disapprovingly, and arched an eyebrow.

"Can you start now?"

Lady Claire seemed surprised. "You mean you want me to work here?"

"Can you start now?"

"This week?"

"No, I mean now. You see these two sacks of cassettes. They need taking to the post office."

On the second day of her tenure at Automata, Lady Claire bought in a packet of fancy biscuits and some home videos. We had no plates, but we did have a video machine, and soon the windows had been opened and we had stopped most of the habitual swearing. By the end of the day she had commandeered the telephone and our callers were suddenly treated with politeness and respect. The humanisation process of the Automata team had begun.

Left: Lady Claire Sinclive 1984, bouquet presented by Imagine
Right: Lady Claire 21st Century

Before long Lady Claire began to feature in our weekly magazine comic strips, which showed life in the Automata office populated entirely by cartoons and mythical creatures covering the entire back page of *Popular Computing Weekly*. I knew my cynicism was licked the day she

took a call from a kid, covered her telephone mouthpiece with one hand and said to me, "Groucho, quick! This is Michael, he's eight years old and he's upset because his dad says The PiMan doesn't exist. Make him happy!" I will tell you about The PiMan shortly, but I think it's true we made a lot of people happy, our little team. As for Lady Claire, she probably completed the longest journey of any of us, from Automata secretary to best-selling author, with a Masters in Counseling and Psychotherapy

THE SCHOOLBOY

Things were moving fast in the programming world, and what had been acceptable a year or two before now seemed creaky and clunky. The programming skills of Christian Penfold and some itinerant amateurs were no longer adequate, and we both knew it. So we recruited the best machine-code programmer that money couldn't buy. A blue-eyed, blond-haired schoolboy called Andrew Stagg. I won him in a British lottery called the Youth Opportunity Program, which was introduced by the socialist government in 1978, and the idea was to get 16 year-old school-leavers into some sort of an apprenticeship scheme. The employer, who was me, would dedicate time and skill to train up the youth, who was Andrew, and the taxpayer would stump up £19.50 a week as an incentive subsidy. That was around thirty dollars.

On the day Andrew signed up I told him the good news, which was that he had just joined a worker's paradise wherein everyone earned exactly the same amount, from the Managing Director, who was me, to the newest recruit, who was him. Then I told him the bad news, which was we were all on twenty-five quid a week, which was around forty dollars. Then I told him the good news, which was that I was going to make him a star. Then I told him the bad news, which was it was going to be bloody hard work.

I had absolutely no idea how he did what he did when it came to programming our games. He seemed to communicate directly with the machine, pushing the technical boundaries until they broke and then we reached a new level of possibilities all over again. He knew no better and I knew no different, so when it came to my early ideas for *Deus Ex Machina* I remember him going off and sitting quietly for a long time. Then he came back with his verdict.

"It can't be done."

"Why not?"

"Because it's never been done."

"How long will it take you?"

He went off again for another think, and returned with that big, open grin of his.

"I can't promise nothing, but I reckon I can do it in two months."

Well, I kept my part of the bargain. He did become a star. An award-winning programming star at that. Here in the future, I'm still working with Andy Stagg, although he's a grandfather now and his golden locks have been replaced by a dome of polished skin. But he's still a computer coding genius.

Left: Andrew Stagg programming the original Deus Ex Machina
Right: the boy-wonder today

In the few short years before *Deus Ex Machina* changed everything for all of us, Automata achieved a few Number One video game titles. My favourite, and the most commercially successful was called *PiMania*. Just like my very first radio broadcast computer treasure hunts, it was a head-on collision between the virtual world and the real world, but this time round I hung it all on an anarchic cartoon character called The PiMan.

Looking back, I don't know if I invented transmedia in video games or not, but when I conjured up the computerised quest *PiMania* in 1981, I saw no reason not to break out of the confines of the computer monitor. It was released in 1982 as a video game, a rock album, a comic strip, a t-shirt, a magazine, a social network, and a real-world treasure hunt for a gold and diamond prize, all of which needed the other elements for maximum participation. The central character (usually Christian Penfold dressed as the PiMan) also made live appearances and TV recordings. The game went to Number One in the UK, Germany, Spain and several other territories we didn't even know about, thanks to a new phenomenon called "software piracy". At one point we had thousands of self-styled PiManiacs searching for the prize in the real world, and I

trickle-fed them clues via the game content, the weekly comic strips and subsequent music albums. The prize was eventually won in 1985, and in 2010 a commemorative *PiMania* album was released on fashionably retro vinyl, complete with a PiMan mask, so I guess the little bastard is still selling, and I want to bring him back to life when *Deus Ex Machina 2* is done and dusted. But that's another story.

In *PiMania* I wanted to blur fantasy and reality, and my method was the usual one which was to make fun of traditional game-plays and get the player laughing as they embarked on some kind of idiotic quest. There are too many anecdotes about what our treasure-seeking players got up to, and this book is about *Deus Ex Machina* and not *PiMania* so I'll keep it short.

PiManiacs turned up all over the place, convinced they had cracked the quest. The ancient monolith of Stonehenge was a favourite at solstice, as was Jerusalem on Christmas Eve, and loads of people worked out that the navigation was based on the constellation of Pegasus, so went visiting various giant chalk horses carved into hillsides, hoping to meet the PiMan. By the time the two eventual winners turned up on the 22nd of July (pi = 22 over 7) and stood in the horse's mouth, I didn't have the heart to tell them the exact location of the treasure was in the horse's arse.

The winners were two women teachers from Ilkley in the North of England and it had taken them two and a half years to solve the quest. Quite a few players formed their own PiManiac clubs, and they met up regularly to join in the quest. And they all said it wasn't the gold and diamonds that motivated them, it was the lunacy. I'm sorry about the divorce case where The Piman was cited as the cause, but that's obsession for you.

The idea of a real-world computer game treasure hunt seemed to catch the public imagination, so for the next big Automata game we stuck to the same formula. It was given the snappy title of *My Name Is Uncle Groucho You Win A Fat Cigar*. I made the solution to *Groucho* a hell of a lot easier, but it still took the mind of a youngster to crack it. Most people thought they were going to meet Ronald Reagan in Hollywood, but he was a cartoon. Mickey Mouse was the president back then, so I used his identity. We flew the winner out to meet him at Disneyland on the supersonic airliner Concord along with his parents, and brought them back on the luxury cruise liner Queen Elizabeth 2. Another example of my business methodology of trying too hard to please people and sacrificing financial security in the process. But I really did like to make our players happy, and at least the extravagant prizes of these Automata Golden Years made up for the pitiful rubbish we bribed our earliest players with in the radio days.

The PiMan's Greatest Hits (cassette cover, Christmas 1983),
*The PiMan's Greatest Hits Too (*cassette cover, Spring 1985),
Pibolar Disorder (gatefold vinyl 25th anniversary reissue, 2010).
All glorious artwork by Robin Evans.

Giving away stuff to our fans was a genuine part of what we did, and we didn't just do it remotely, we did it in the flesh. The video games business that had begun in backrooms and bedrooms was now based in offices. The computer fairs had seriously outgrown the early venues and

were now held in national exhibition arenas. We would travel all over the place to attend them with our wares crammed into a little Fiat Panda, which was a sort of motorised wheelbarrow with the type of bodywork that meant whatever colour you started out with turned to rust-brown. Our Fiat Panda was second-hand, and it looked like it had been used in a suicide pact. The interior was clean but there was something that looked like lipstick around the exhaust pipe.

At one event, word got round that government tax inspectors were in attendance, trying to audit the gathering of video games companies who were selling stuff for cash and maybe forgetting to inform Her Majesty's Inland Revenue in their annual accounts. Christian Penfold's reaction was hilarious and typical. He grabbed the public address microphone and announced that here at Automata we always gave our games away for free, first come first served. It was a stampede, and he cleared the Automata stand of everything we had. Then he made another announcement, "Can representatives of the Inland Revenue make yourselves known at the Automata stand. We'd like to claim a tax rebate."

That wasn't the only time we cleared our stand. One particularly xenophobic violent game on an adjacent platform got me very annoyed indeed, mostly because the fuckwits running it had brought in a brace of half-naked women to sell their crappy wares to children. We cleared out our stand then and there and hired a band, with the instruction to literally blow the opposition away.

In a way, the rot had already set in, and these vast expos were the death knell for most of the original games companies. They simply couldn't afford to attend. I would miss meeting up with woolly hippies like Pete The Hat from Salamander, who always seemed more interested in playing his guitar to the public than actually selling them anything. But at least the wonderful Jeff Minter of Llamasoft made it through.

By 1983 the video games business was going mainstream. The public exhibitions multiplied in number and grew in size, and so did the selection of magazines and retail outlets that catered for the astounding growth of the video games market. Back-bedroom developers, groups of enthusiasts and small companies like ours had done all the spadework, laid all the foundations, built all the fabric and decorated the entire nursery, and then big business began to sniff around, scenting an easy profit from our labours. Some small companies expanded too fast and overreached themselves, others were swallowed up by big players in media and entertainment. As for our little gang, we simply kept doing what we had always done, until big business came sniffing at our door. Literally.

The Microfairs! Clockwise from top-left:
Christian Penfold fails to get arrested for hijacking the PA system,
Mel Croucher entertains, the Automata music protest, junior league PiManiacs,
Andrew Stagg demonstrating the carrot-and-stick principle

Robert Maxwell was a gross man, he had risen from poverty to command a huge media empire, and round about this time he wanted to buy the new music video channel MTV, the board-game company Waddingtons and Clive Sinclair's computer business, among many other business assets. He also wanted an instant video games company for his son Kevin to play with. The two ambassadors he sent to our door were charming and they had already set up Mirrorsoft to publish educational software. They were ready to make the move into computer games and seemed to think I had founded the British leisure software industry, so they offered to buy my brain, or rent it. It was neither for sale nor rent, but that didn't stop us getting along fine and I was happy to share what I knew and offer what advice I could.

Robert Maxwell would go down in history as one of the biggest corporate swindlers of the Twentieth Century, before meeting a mysterious watery end. His son Kevin would go down in history for bringing *Tetris* to the masses as the biggest-selling video game of the age, before going down as Britain's biggest ever bankrupt to the tune of more than four hundred million ponds. But I can't deny that there was one time they did me a big favour.

Christian and I had decided to release a conventional family game as the main Automata title for 1983. It wasn't a particularly original concept, being a trading game with players taking turns to throw virtual dice and travel round an on-screen square board, buying property and stuff. We called it *Go To Jail*. Others might call it *Monopoly*. The horrible legal injunction that banned us from selling it came from the giant Waddingtons corporation, who had the sole rights to sell *Monopoly* as the world's best-loved board game in the UK. We had received quite a few threats of prosecution by then, usually for libel or defamation after one of my magazine articles, and as usual in legal cases I penned my traditional "fuck off" response. But before I sent it to Waddingtons, I thought I'd give my pals at Mirrorsoft a call and ask their advice, knowing that Robert Maxwell hated Waddingtons with all his vast bulk. After a few phone calls their end to some interesting people, I changed my reply to, "See you in court."

Instead of launching our game at the next Microfair, we cleared our stand yet again and turned a single spotlight onto a blue plastic bucket sitting on top of a high wooden stool. Then we invited the crowd to remember all those past events where we had given our games away and played the fool for their amusement, and if they felt like it they could put some money in the bucket to pay for my trip to see Waddingtons in court. Many people contributed that day, and I like to think it was a perfect example of early crowd-funding.

I remember one young guy in particular, fresh out of school and

wearing a leather flying jacket and blue silk scarf. He put a five pound note in the bucket, and shook me by the hand. That was the first time I met Clem Chambers who became a lifelong friend, not to mention the founder of the video games company CRL whose staff was so young it was like walking into a crêche. He turned into a capitalist pundit but I'll forgive him that because I'm delighted to report that he's also a fine novelist and musician, and he'll always be known as Clembabe to me.

I did indeed see them in court. The case of Waddingtons versus Automata ended up in the High Court, London, where the judges wear long white wigs and the lawyers wear long black gowns. It was just like being back at school, but I was no longer a schoolboy, I was all grown up and not in the slightest bit worried. I knew there were plenty of other leisure software companies trying to sell electronic versions of traditional games, and I knew the traditional games manufacturers thought we could all be crushed by their legal system. I knew that my company had been hit because we enjoyed the highest profile but suffered from the smallest resources. An excellent choice of target as far as Waddingtons was concerned, with what must have seemed a near certainty of success in warning off the rest of this upstart video games industry. I knew exactly how much the legal system was costing Waddingtons for every hour of every day that the case was held. It was a lot. And I also knew how much it would cost me to defend our case in person. Absolutely nothing, apart from what we had collected in the bucket. There was one other thing I knew. And that was I could beat them.

Waddington's legal team showed mild amusement when I declared that I did not have any wigged and gowned representation of my own, but would like to fight the case myself. And they launched straight into an indictment that included intellectual property theft, copyright infringement, passing off, intentional harm to their client's reputation, and the end of civilisation as we know it. They also wanted a shitload of money in damages.

What the enemy's legal team did not know was that I may have been representing myself, but Robert Maxwell's mob had put me on to some free-of-charge advisors, including Baroness Barbara Hammet le Brun who was a recreational hacker and a brilliant strategist, Edward de Bono the inventor and author who coined the term lateral thinking, and Michael Mansfield the most famous civil liberties lawyer of the day who would go on to be central in the inquest of Diana Princess of Wales.

By day two, Waddingtons' case looked like it was going to be a long haul and nowhere near as simple as they had reckoned, and their legal team asked to talk with me outside of the courtroom. I can still see the smirk on the face of those lawyers when I declared that I was not only going to prove that my product was nothing like the Waddingtons boxed

game, but I was also going to generate as much publicity as I could to demonstrate that Waddingtons did not have the rights to the *Monopoly* concept in the first place, so it would be open season for any computer games company to take a pop at it.

Then I produced a boxed family board game, borrowed from The Museum Of Childhood in Edinburgh. It was called *Brer Fox an' Brer Rabbit or The Landlord's Game, by permission of the Pall Mall Gazette, patent and copyright in the United Kingdom.* It was dated 1913, and guess what, it was almost identical in concept and layout to *Monopoly*, which was not patented until 1935. But why stop there? I had been given enough case histories to trace the game back through the ages and try to prove that far from being invented in the early Twentieth Century, it's completely generic and goes back thousands of years to Ancient Egyptian property board games like *The Game Of Passing*.

Clockwise from top-left: An audio cassette labelled Go To Jail, The Landlords Game from 1913, Clement Hadrian Chambers today, Clembabe Chambers at CRL

If you have ever seen vintage British movies with a court scene featuring an ancient judge trying to come to terms with modern technology, then imagine what the old fart would make of Automata's *Go To Jail*, which consisted of an audio cassette in a little plastic case. No board, no toy banknotes, no moveable tokens and no rules. I had come equipped with a battery-powered cassette player with the loudest speaker I could find for its size. I figured that the judge may have known what an audio cassette was, and how it was played. I also figured that the judge would have absolutely no idea what the ear-splitting noise was that comes from playing ZX Spectrum code at full volume. That's all the product was, some noise on a spool of tape, a million miles away from the nation's best-loved family board game.

Waddingtons halted the case and we released the game just in time for Christmas 1983. But I was beginning to wonder what the hell I was doing ripping off celebrations of capitalist exploitation like *Monopoly* in the first place, and then taking on corporations to defend my own lack of originality.

I'd love to rewrite history, and say that the concept of *Deus Ex Machina* benefitted from an accident of events and a magical chemistry of the team, but to tell the truth it was a straightforward Stalinist procedure, designed from beginning to end as if it was one of my old architectural commissions and executed exactly to my own plan. My business partner Christian Penfold was a salesman with an attitude, and as soon as he realised he didn't have to be nice to people he didn't like, he dedicated himself to offending every games distributor in the country.

After he achieved that particular goal, he began to commission a series of home-grown titles from third-party programmers. And those games were not really to my taste. They were derivative and usually walked through the door accompanied by eager children or disillusioned schoolteachers, who shared the common attraction of being for sale if the price was right. Some of those later games released under the Automata label looked great and played very well, but they meant little to me.

I simply let Christian get on with it, and withdrew into my own zone of the Automata building, which was the top floor of what used to be Dorothy's Woolshop for the Discerning Home Knitter. I also started working evenings and nights to avoid getting irritated by the daytime treadmill of what Automata was becoming. And when it wasn't mundane it was tense. There was an increasing incidence of raised voices, as Christian berated his targets on the phone. This wasn't what I wanted any more.

What I wanted was to get back to the fun of creating original stuff and get away from second-hand ideas, and I trawled through the themes and ideas of all the video games I had dreamed up myself, trying to see

what common threads were lurking around in there and if they could be combined to take video gaming to a whole new level for me. To me video games were not another way to play traditional board games. They were not an extension of sport, or gambling, or fighting. The video games I wanted to create were an extension of dreaming.

In the middle of all this self-indulgent stuff, I found myself having to organise a memorial service in a Victorian chapel, all flint on the outside and filtered light on the inside. The gathering for the service was a somber one and the mood was particularly grim, not because of the death that had just happened, but because of what people were feeling about their parts in the life that had preceded it. It was my duty to be up there in the pulpit delivering words that I hoped would make some sort of sense of it all. And at the end of my effort, the best I could do was sum it all up with some quotations, which I had to write down on little cards because I was afraid I might not remember them properly.

In the days that followed, I got back to thinking about a video game that would break the logjam of banality once and for all, and get me back to enjoying being part of Automata. Which is when I read those little cards again, summing up a whole life in a few words. And there it was, the theme for a game that could be played like being in your own movie.

I got hold of a pad of graph paper and wrote the words *Deus Ex Machina: An Accidental Life* on the front cover. Then I scrubbed out the last three words. If the video games I wanted to create were an extension of dreaming, the time had come for me to dream big time.

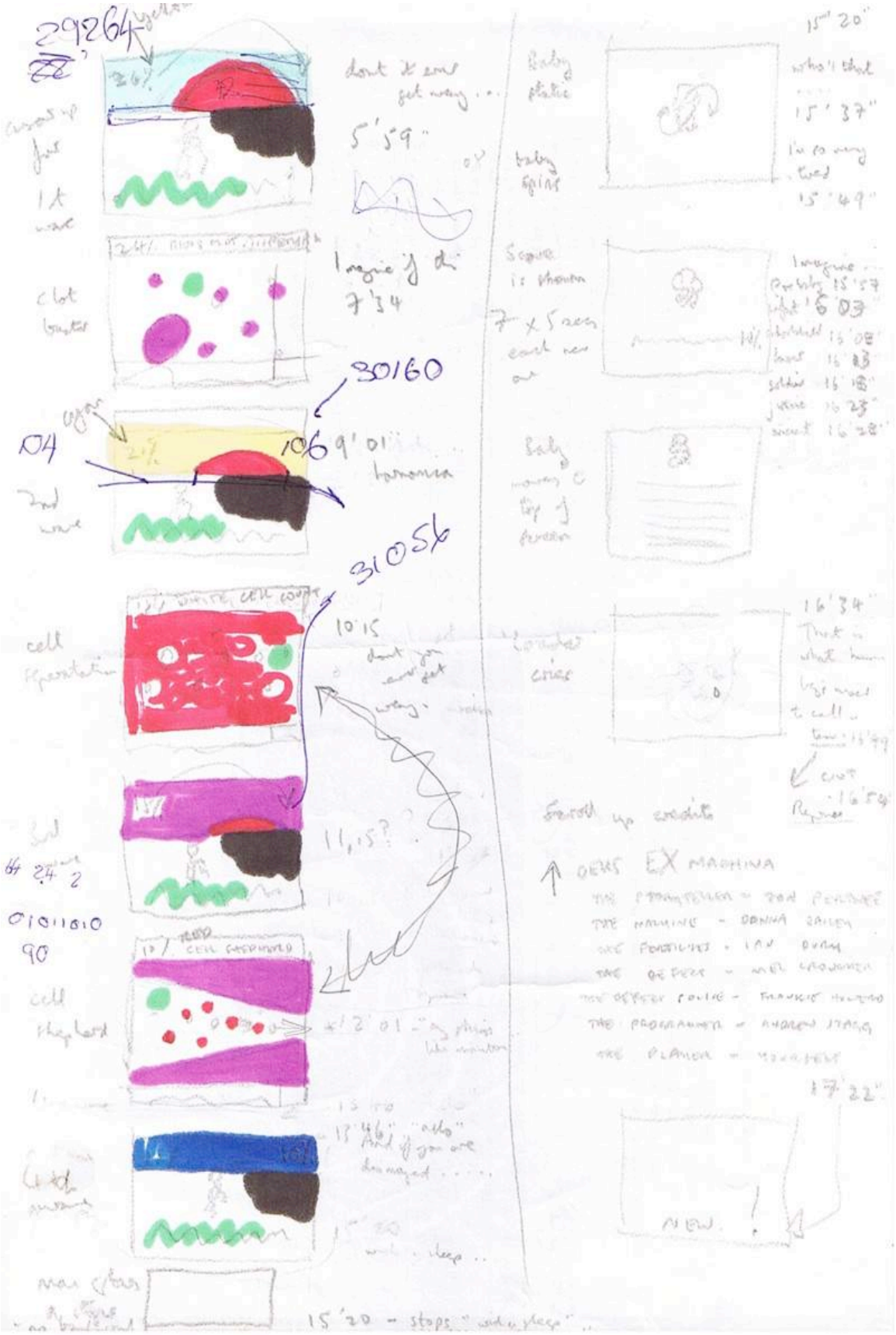
CHAPTER 4
Hindsight

Here I am, sitting in the future, looking back three decades to the origins of a celebrated, but commercially unsuccessful video game called *Deus Ex Machina*. Here in the future, there's a man I know who runs a video games company. Neither the biggest nor the smallest in the land. He has already invested a great deal of money on a game which he is not certain will ever come to market. What shocks my future-self is not the money involved, but the time. So far, his unreleased title has eaten up 150 man-years development time. Back in the heyday of Automata, we would be disappointed if a game concept hatched when the pub opened its doors was not completed by closing time. In other words, Automata never risked real capital investment because we bashed out a game in a few hours, and any sales at all meant we would make enough profit to pay the mortgage and go off to the pub again. Then the process of buying-in games began, and triggered my withdrawal into self-imposed exile over the shop.

By the time I came up with *Deus Ex Machina* in 1984, I needed some proper time and money to turn what was in my head into what could be in the player's head. It may seem ludicrous in terms of today's 150 man-years and huge budgets, but *Deus* was a serious step-change for me. I reckoned it was my risk, I ring-fenced it from the Automata accounts, and I financed it myself.

The total cost of creating *Deus Ex Machina* was £8,760, which was everything I had at the time. We dealt in Her Majesty's Pound Sterling back in 1984, before the Yankee Dollar became the industry benchmark, so you can work out the conversion rate for yourself.

I don't believe in debt, and I have never borrowed a penny to finance any business venture, creative project or consumer toy that I cannot afford by putting my own hand into my own pocket. The encouragement of overextended credit offered by cynical usurers to gullible idiots is responsible for 75 per cent of the world's evils. Another 20 per cent is the fault of the hijacking of religious faith. I suspect the remaining 5 per cent is all down to a demon prankster called Binky. As for my £8,760, around two-thirds of that money was spent paying celebrity voices to appear on the soundtrack. Today is it common practice to hire the vocal chords of celebrities to recite in-game twaddle, but because I knew no better, it seems I was the first to do it.



Deus Ex Machina storyboard, first sketch of credit sequence.

Deus Ex Machina took me three weeks to design the game, using felt tip pens and graph paper to hand-draw all the graphics pixel by pixel. I wrote the mechanics of the game as a screenplay and typed out the instructions for the programmer a bit like a stage production. It took me another six weeks to write and record the soundtrack. The reason it took that long was because I played all the instruments myself and I was a rubbish musician, so it took ages to edit out all the wrong notes. And the reason I played all the instruments myself was because I couldn't afford to hire any real musicians after paying the celebrity voices. Then I invested another week to dream up a marketing campaign to get me in the national press, the specialist games magazines and a wee bit of broadcast media. And it took Andrew Stagg, the blue-eyed boy-wonder not long out of school, ten weeks to write the machine code, and I will be eternally grateful to him for achieving that. Even though he told me it would only take eight. He says I paid him three hundred quid for the privilege of his being awarded Programmer of the Month and us being awarded Game Of The Year. That sounds about right. Two people, ten weeks each. Versus 150 man-years.

Deus Ex Machina was never meant to be just another video game. I meant it to be an interactive movie. And the thing I wanted to achieve with *Deus Ex Machina* was to allow the viewer to become the active central character, not the passive viewer. The way to do this was to generate a reaction. Any reaction, to stir up some genuine positive emotions in the players. And I figured the best way to do that was to get them to go with the flow of the music and the gameplay, preferably wearing proper headphones, so the soundtrack would play inside their head, and hopefully relax them before dragging them though the screen to live out an entire lifespan in an hour.

As it turned out, the one hour that I originally intended washed up as two chunks of 25 minutes each. The full hour would have to wait for the world to age thirty years and for technology to evolve accordingly. In 1984 I was restricted to the home-computer capacity of the most popular machine around, which was the 48K Sinclair Spectrum. If we put that into perspective yet again, one of the most popular video games of recent years involves nothing more than red blobs representing angry birds attacking green blobs representing thieving pigs. The demo version of *Angry Birds* requires 524,288 kilobytes of memory. I didn't need over half a million of them, I needed 90.

When Andrew declared we could not fit *Deus Ex Machina* into the 48K of computer memory available to us, it took all of one minute to figure out that we could double that available memory. The process involved nothing more than inviting my players to pause half-way through the game while the computer saved their current score, then flip

over the data cassette and wait for the second half to load. Suddenly the 48K Sinclair Spectrum could play a 96K game. And although that seems like a breakthrough in hindsight, once again I had absolutely no notion that it hadn't be done before .

Doubling the computer's virtual memory also meant I needed to package the game on two separate cassettes. One for the soundtrack, the other for the code. It would be far too demanding to ask the player to synchronise the audio and the program on a single cassette, which would have meant them relying on mechanical tape-player counters, or the sweep-hand of a wristwatch. It was much simpler to give them an audio countdown on a separate soundtrack cassette, and let them sync the start of each half of *Deus Ex Machina* themselves. They could do this by holding the pause-button of an audio cassette player when a recorded voice told them to, then release it the moment the screen counted them down to zero. In that way the soundtrack would run in sync with the action on the screen, or at least as far as the idiosyncrasies of stretched magnetic tape and whizzing spools would allow. Anyway, the soundtrack had to be recorded before the game could be programmed, because the game had to play in sync with the recorded sound.

The game concept was almost irrelevant. It told the story of a whole, long life under a dystopian regime, and the game-play was simply a series of mechanisms to get players immersed in the audio-visuals. I used a sequence of interlinked game-plays, and none of them were any more original than what we had produced before, but that wasn’t the point. Books, movies and theatre are also a series of unoriginal sequences. Shakespeare proves that it’s the recombination and original presentation of stolen ideas that creates a classic. I wanted to take the player along for the ride, but allow them to control the way they reached their inevitable destination. So from the fertilization of the egg by the sperm, to their own birth, then onwards through the entire process from cradle to grave, it pretty much wrote itself. Apart from the *Seven Ages Of Man*, which I nicked from Shakespeare himself. When I wrote it, I was certainly no mewling, puking babe, nor a schoolboy, and hardly a lover. But I guess I was a soldier by then, involved with the campaign against the arms race and the insanity of nuclear weapons. So I was able to write the first four ages from personal experience. My middle-age, all the puffed-up striving, senior moments and decrepitude were still to come.

Even with a whole 96KB to play with, I had to cut out several sequences I wanted to include, including all the School section, a War Crimes bit and a very silly Dance, along with their songs. I recycled some of the music from the cutting room floor onto the final Automata album, but as usual it made little sense without the gameplay to accompany it. I think my favourite sequence of the original game is the end section,

where you have grown weary and become a feeble old husk, trying to stay alive, and then you have to accept the whole notion that it's too late to learn from your mistakes - except it isn't, because imagine if this was nothing more than a computer game, and you can start all over again. I haven't reached that stage yet, but as will be explained before this book is done, it's very close.

Originally I designed *Deus Ex Machina* so you can submit to it and let it roll over you. Or you can try and beat it, and get the highest possible score. On the other hand, you can keep trying to live your sequential life in different ways and see what the outcome is. That's about all I can say about it, and it's banal anyway. If you do bad stuff, you get penalised. If you do good stuff you get rewarded. *Deus Ex Machina* was a bit more devious than that, but not a lot.

I had no doubt that what I wanted to do could be done at a technical level, even if nobody else had bothered to try before. I believed that other games companies and mainstream movie studios simply had better things to do, but they would all make interactive movies when they got round to it and decided they wanted to. I thought that by the mid 1980s all cutting-edge computer games would be like screenplays, with proper structures, real characters and voices, half-decent original stories, an acceptable soundtrack, a variety of user-defined narratives and variable outcomes. So I thought I'd better get in first, and produce something positive before others started churning out negativity based on stereotypical violence and "winning".

You couldn't and you can't "win" *Deus Ex Machina*. But I wanted individual players to become totally immersed in the piece, and it still gives me great satisfaction when people tell me about the influence it had on them. Mind you, many of them say they were on hallucinogens at the time.

My plan for *Deus Ex Machina* was to keep waging my low-level war against dumb video games, based on three lessons. Military strategies used by the German army, the Viet Cong and the anti-nuclear protests of the women of Greenham Common.

Lesson One goes like this. After the First World War, the French were determined that Germany would not invade them in any future conflict, and they built a massive line of concrete fortifications and armed defences all along their border with The Hun. But when the Germans did decide to invade France in 1940, they completely ignored that line of defences and simply nipped around the top via Belgium, where there were no such defences.

Lesson Two is another example of lateral thinking. During the jungle phase of the Vietnam war, the Viet Cong defenders had no money but everything to fight for, whereas the American invaders had lots of

money and no idea why they were fighting. Uncle Sam's boffins spent a fortune building an electronic wall of defences using chemical sensors known as "people sniffers" to try and pinpoint Charlie's movements, but Charlie defeated the ludicrously expensive system simply by pissing on it, as in making wee-wee. The sensors would give out a lengthy alert signal, drawing in even more expensive air-strikes, but Charlie would be long gone.

Lesson Three is my favourite. In 1981, the US Air Force decided it would be a good idea to take nuclear missiles out of their bunkers and drive them around the country lanes of England in the dead of night, in order to play hide and seek with Soviet spies. To execute this amazing plan, they had to manoeuvre the missile carriers through one of four gates of a Royal Air Force base called Greenham Common, where groups of women protesters (including The Worker Who Married Me) held vigil. Some of them hid in the undergrowth or up trees, in order to hurl cans of paint over the windscreens of the missile transporters. And so, the most fearsome and expensive weapons every devised were rendered useless by a can of paint. Oil-based gloss paint was best, especially when the driver hit the windshield-wipers as a reflex action, which they did every time.

These three lessons, when applied to *Deus Ex Machina*, meant I was determined to get around any obstacles by ignoring them, and if there was any technical opposition to what I wanted to do then I would try and piss on it, and finally, in case of critical or media opposition I would throw cans of metaphorical gloss paint to obscure the issues.

As it happened, *Deus Ex Machina* became known as a 'multimedia' product, slightly ahead of its time. But only by a quarter of a century. The game wouldn't work without the concept album, and the music wouldn't mean much without the game. I also wanted to make the packaging an important part of the whole thing, and the most important part of the packaging was a movie poster to act as a visual focus, a short story and an instruction manual. What I needed was a key image to hang the whole thing on, and because the story pivots around a sentient machine that gives birth to the player's character, that image needed to be female.

Our in-house artist Robin Evans had the hots for a silent movie actress called Brigitte Helm in her machine-woman role for Fritz Lang's masterpiece *Metropolis*, vintage 1927. Personally, I always fancied Louise Brooks in *Diary Of A Lost Girl* made a couple of years later. But the face of *Deus Ex Machina* was called Nina. I saw Nina through a pub window, fronting on to the street opposite the Automata office. She was extremely beautiful and her natural expression was very serious. Maybe that was because she seemed too young to be in there. I knew what I had to do, which was to stride in, fling my arms wide and boom the immortal words, "Hey kid, you wanna be in the movies?"

Top: Brigitte Helm 1927, Louise Brooks 1929
Bottom: Nina von Palisanderholz 1984

So I lurched through the swing doors, which punched me in the back, propelling me towards her, and started burbling about how I was from the office opposite and saw her through the window and would she like a drink and by the way was she over 16. That's when she gave me the exact look I needed for my poster. A mixture of Brigitte Helm, Louise Brooks and Miss Crunt. It said, "This guy is a total jerk." Perfect.

Robin Evans took the photographs, Christian Penfold got her to sign the release document, and I couldn't believe my luck. Once I had

Nina's face on the poster, things began to move fast. I drew up the target list of the voices I wanted to play the characters in my little interactive movie, and started bombarding them and their agents with proposals. These were primitive times, remember, so there was no instant communication, no way of checking out people online, but we did have a nice row of telephone directories on a long wooden shelf at the Post Office up the road. My favourite celebrities were still firmly stuck in the days of radio entertainment and vaudeville acts from the music halls, and most of the names on my hit-list were comedians, not proper actors. But I didn't really want to be tramping the streets of London to track them down, and so I started closer to home.

There were only six voices in the first version of the game. They were The Storyteller to help narrate what was going on, The Machine to create and control the action, The Fertiliser to act as comic relief, The Voice Of Reason to put the boot in, The Defect to represent the player, and The Defect Police to cause the player grief. Two other voices got cut out because I didn't have the resources to include them, The Teacher and The Night Nurse, but I have brought them back for the Twenty-First Century remake. And as it happened, I ended up singing the role of The Defect myself because the rest of the production budget got spent and there was nothing left. That meant I only needed to shell out my money to hire five celebrity voices. The voice of The Narrator was the most important of all, and it fell into my lap. Here's how it happened.

The first name on my list that I contacted was Sir Patrick Alfred Caldwell Moore, President of the British Astronomical Association, TV presenter of the Apollo Moon landing, a geriatric right-wing misogynist, and an amateur actor who had appeared as himself in the cult sci-fi series *Doctor Who*. Patrick Moore also had the distinct advantage of living nearby, albeit with his extremely ancient mum, and he was happy to be listed in the local phone book. But what I really wanted him for was his voice, which was like a castrated corncrake on speed. He was also a talented musician, and had once accompanied Albert Einstein in a duet, as well as performing a great xylophone version of the Sex Pistols' *Anarchy In The UK* for the Queen of England. I swear I am not making any of this up.

I phoned him up and told Patrick Moore he had the perfect voice to play the part of a fertilising sperm for me, which he thought was a great idea, but the bad news was that when he asked his mother what she thought she wouldn't let him do it. The good news was he could give me an introduction to Doctor Who himself, a silken-voiced veteran named Jon Pertwee.

Pertwee was a fine actor, although he was best known for radio comedy shows before shooting to fame in *Doctor Who*, and I was a fan of

his long-running radio series *The Navy Lark*, mostly because it was based in my home town of Portsmouth. I pitched him a very personal proposal and he agreed pronto. But Jon Pertwee's voice was far too rich to waste on the role of the sperm, so I cast him as the Storyteller instead.

Jon Pertwee was a joy to work with, although we got off to a shaky start. He arrived two hours late for the session, and I thought he was an arrogant sod for keeping me waiting, especially as I was hiring the studio by the hour. When he eventually arrived, he was clad in skin-tight brown leather biker kit and wearing a crash helmet. And he was limping badly. He apologized by saying that he'd just fallen off his Harley Davidson while racing another old actor called Ralph Richardson on their way to the studio. Jon Pertwee was no spring chicken himself, but he did the *Deus* recording in a single take, and it was absolutely perfect. No cuts, no dubs, no edits. Brilliant. We became friends after that, and we even wrote a book together which was immediately remaindered and now pops up at *Doctor Who* conventions for silly money.

The second voice I got in the can was The Voice Of Reason, which cost me nothing at all, apart from the hour and a half I spent discussing propaganda and freedom of speech with the greatest peace campaigner of the age, E. P. Thompson. He had been invited to address our local campaign for nuclear disarmament, and my role was to record his speech because I had some professional recording gear. When I explained what I was trying to do with *Deus Ex Machina* he simply tossed his grey lion's mane and said, "where do I sign".

The third voice to sign up was for the role of the Defect Police, and it was not a happy experience. I wanted to create the role of the head of the Defect Police as a terrifying idiot who menaces the player more by stupidity than by evil. It turned out that the real thing would eventually appear in the form of George W Bush, but let us not dwell on that. When I was a kid I used to listen to the radio whenever I could, and there was one time when I got very frightened by a camp British radio comedian called Frankie Howerd, whose stock in trade was stream-of-consciousness tirades and goofy vocal ticks. Howerd had been out of fashion for years, but I got it into my head that I could exorcise my childhood fears by hiring him for the day and getting him to kill defective babies. His personal tragedies have been documented elsewhere, but at the time we worked together his star was in the ascendance again, and like Jon Pertwee he had become a cult figure. Which is the real reason I wanted him for the role. I reckoned it would help sell more copies of the game.

I phoned his agent, and we agreed a price. But then I negotiated it down to half of what he originally asked for. I still feel a complete bastard for doing that. Frankie Howerd demanded cash for his work, and

I refuse to be drawn on my experience of working with him further. The recording session left me with a very good reel of tape, and a phobia of weasel pelt.

If I didn't enjoy recording the voice of the Defect Police, then nailing down the voice of the Fertilizer made up for it in spades. Ian Dury was a unique performer. Known as the Godfather of Punk, he had become a superstar a few years earlier with anthems like *Sex And Drugs And Rock'n'Roll*, and *Hit Me With Your Rhythm Stick*, which combined raw energy music with superb lyrics, plus a healthy seasoning of filth. Ian Dury happened to be disabled as a result of childhood polio, but he held the so-called "official" 1981 International Year of Disabled Persons in contempt. He reckoned it was counter-productive and patronising, and when he released his anthem *Spasticus Autisicus* in protest, it got banned by the BBC. I wrote to him and asked him to play the sperm in *Deus Ex Machina*, although I didn't tell him that I'd already been turned down by Patrick Moore's mum.

It was good that Dury was already aware of our earlier games, which was down to his son Baxter who has just turned thirteen and had enjoyed a couple of our comedy titles. It seemed that some of our themes struck a chord, and he thought it was important to provide his son's generation with an alternative to violent computer games which he dubbed as "a load of old fucking electro bollo." This was not one of his most erudite lines, but I agreed with him, and so we arranged a date and did it. This was the best studio session of the lot for me, not because the recording was good, which it was, but because Ian Dury was really generous, and invested his time going through the music and helping tweak it. At one point we even did a version of the *PiMania* song for which the heroic Ian Dury wrote some highly obscene lyrics.

I was still looking for the voice of The Machine, and Ian Dury suggested asking a fallen angel of the period named Marianne Faithfull to do the honours, because he reckoned she would be perfect for a trapped entity which still sounds rebellious. Marianne Faithfull had inherited the title Baroness von Sacher-Masoch, and the family trait that had coined the term masochism ran in her veins. Despite being an aristocrat and the ex-lover of Rolling Stone Mick Jagger, we thought she'd be cheap. But it didn’t happen. She had relapsed into drug addiction which resulted in heart failure and a broken jaw, and she disappeared off our radar.

A local performer I had worked with recommended I check out a singer called Donna Bailey, and I thought he was talking about the woman who had programmed the arcade game *Centipede* for Atari in 1980. But that turned out to be Dona Bailey, and as far as I know she had never shown any interest in getting hired to sing the voice of one of her own machines. Which was just as well, as it turned out.

The Donna Bailey who hadn't programmed *Centipede* for Atari didn't have Marianne Faithfull's destroyed voice, instead she was a full-throated jazz singer, and she gave it all she had, singing like the fallen angel I wanted. We recorded in a bizarre studio which had been set up in an old air-raid shelter by the bass player of an ancient rock band who had once reached Number One in the UK singles charts of 1960, and had learned his craft under the dubious tutorship of the genius, murderer and suicide, Joe Meek. I had booked the session for two hours, because I needed Donna to sing four tracks and deliver a bit of link dialogue, but we overran badly and got slung out by the grumpy engineer. When I played back the tapes I realised there was an entire chunk missing, which I had to perform myself using a simulated female voice that I processed on a dinky vintage Korg Vocoder.

The final part of the audio jigsaw got slotted into place when I hijacked a classroom full of local kids who were supposed to be having an art lesson. They provided the Choir of the Test Tube Babies without any rehearsal and yelled the lyrics like a schoolyard chant, with me waving a long stick to count in the chorus and generally threaten them. They loved it almost as much as I did, which was a lot.

So now it was all down to the editing, splicing, overdubs and mixing, which was done on my office desk, usually at night when there was less traffic outside and the phones had stopped ringing. An analogue tape recorder, a pair of scissors to cut out the wrong notes and some sticky tape to stitch it all back together was a tedious but highly effective process, and I indulged myself in exploiting a brand new technology that had come on to the market six months earlier, known as digital delay. This gave me a toyshop full of magical effects housed in a black slab called a Boss DE-200. Before its introduction I had had to create physical loops of tape, but the Boss allowed me to capture and record up to two seconds of sound, and then play with it any way I liked to turn it into a rhythmic pulse, squish it, distort it and generally abuse it something rotten.

As soon as the soundtrack was finished, Andrew the Boy Wonder began to sync up the visuals to the split-second. The Cartoonist got down to producing reams of cartoons and publicity graphics, Lady Claire took on the duplication and packaging, The PiMan got ready to do battle with the High Street wholesalers and retailers, and Automata prepared to release *Deus Ex Machina* into the wild.

And not one of us suspected the utter debacle that was about to happen.

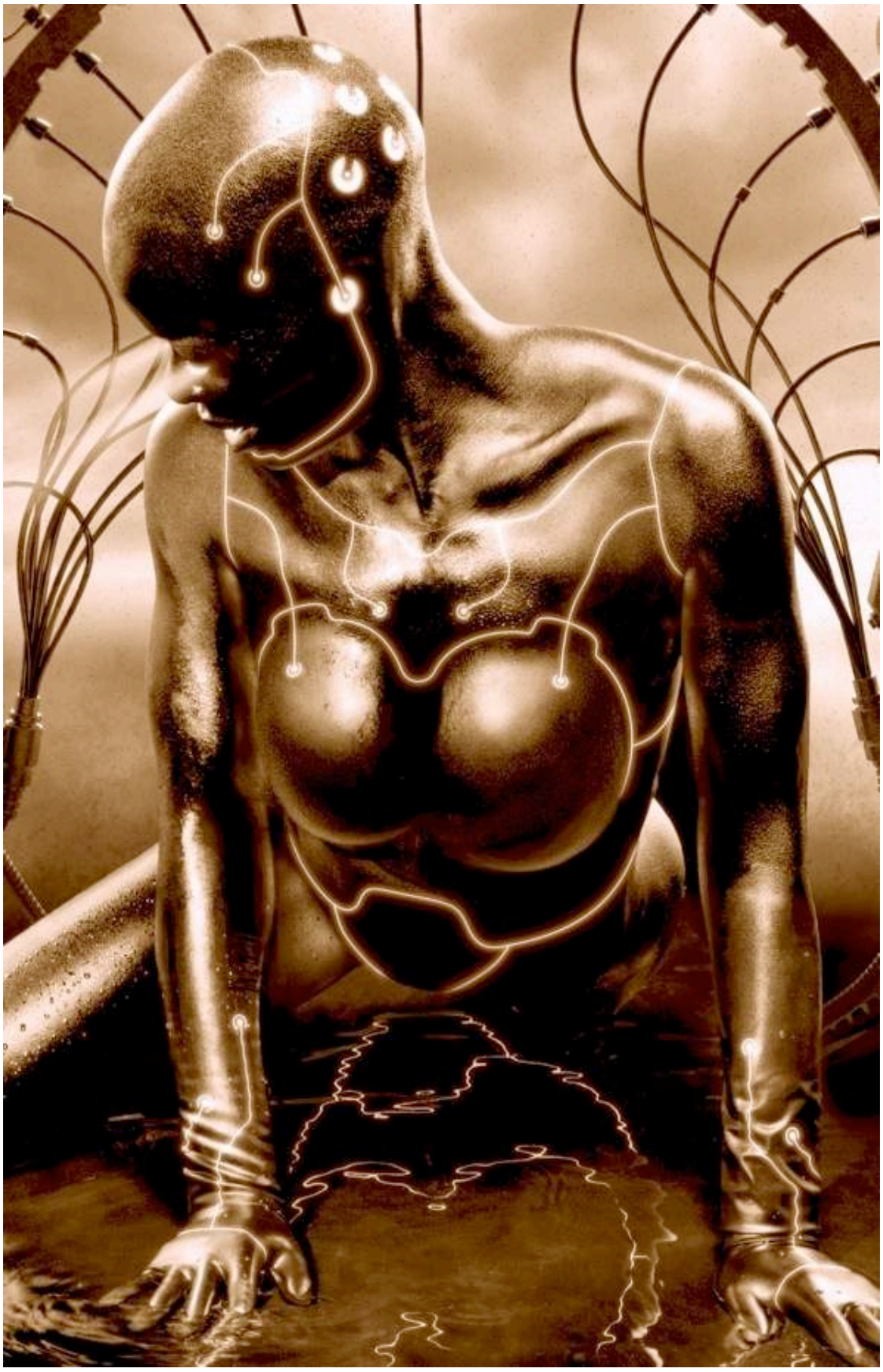
Clockwise from top-left: Mel Croucher (The Defect), Patrick Moore (vetoed), Jon Pertwee (The Storyteller), Ian Dury (The Fertiliser), Marianne Faithfull (indisposed), E.P. Thompson (The Voice Of Reason), Donna Bailey (The Machine), Frankie Howerd (The Defect Police)

From the top: recording the final chord, the Boss DE-200 digital machine
Bottom left: the genuine Automata game. Bottom right: unauthorised mouse mat, illegal T-shirt and badly cloned game with rip-off Pink Floyd title.

The debacle did not stem from the bafflement of players of the game, which I had feared. Neither did it stem from the refusal of the High Street outlets to stock it, which simply meant we went mail-order. The debacle stemmed from organised piracy on an industrial scale, and I never even knew it was happening until it was too late.

***

In the next two chapters of this book, I'll take you on a walk through sides One and Two of the original game itself, without any comment to get in the way.

I'll include the original text and all the blurb that was printed on the packaging and on the backside of the poster, as well as some sketches and production storyboards I gave to Andrew for the programming. And there will be screenshots of the game-play too, plus a few photographs and cartoons.

Then we'll get back to the story.