A first-hand account of Quicksilva and its part in the birth of the UK games industry, 1981–1982

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Abstract: This article is a first-hand account of the birth of the UK game development industry through the lens of the rise of Quicksilva, the most successful game development company of the early 1980s. Between 1980 and 1982 Sinclair Research released the ZX80, ZX81 and ZX Spectrum home computers and these supported the nascent game development industry. The market created by the volume of sales of the ZX81 meant that UK game developers could, for the first time, support full time employees through their sales of games. Game developer Quicksilva was one of the first game developers in the UK and this account explains how the UK industry game development industry was improvised into being. The material for this article is drawn from the personal collection, and recollections, of Mark Eyles, the first employee of Quicksilva.

Subjects: Design; Game Development; Gaming; History of Art & Design; Media & Film Studies; Social Impact of Computing & IT on Society

Keywords: Quicksilva; entrepreneurship; games industry; video games; computer games; Sinclair ZX80; Sinclair ZX81; Sinclair ZX Spectrum; game development; 1980s

1. Introduction
The early days of the computer and video games industry in the UK cannot be fully understood without examining the short period in the early 1980s when the UK game development industry came into being. Before this period, there were enthusiasts tinkering in backrooms and after this period, there were game developers and publishers working from offices. There was consolidation and

ABOUT THE AUTHOR
As Creative Director at Quicksilva in 1981 Mark Eyles was one of a handful of pioneers establishing the UK games industry. After a career freelancing and running companies in the games industry, he finished as Head of Design at Rebellion in Oxford. During this time, he also made holograms and wrote for 2000 AD and Sonic the Comic. In 2003, he joined the University of Portsmouth where he set up and ran three games courses in the School of Creative Technologies. He started the Women in Games conferences (ran from 2004 to 2011). In 2006, he formed the Advanced Games Research Group, which uses practice-based research to investigate the boundaries of games; in 2012, he completed a PhD investigating ambient gameplay. He is an educational advisor to TIGA (the independent game developers association). He is a director of indie game developer Ambient Quest Studios, which has been running since 2008.

PUBLIC INTEREST STATEMENT
This article describes how the games industry started in the UK, with a first-hand account of the growth of game developer Quicksilva from 1980 to 1982. During these years, the UK game development industry moved from hobby to full commercial enterprise as the market for home computer games rapidly expanded. This occurred against the backdrop of Thatcher's Britain and the remarkable success of Clive Sinclair's ZX-81 and Spectrum computers.
collapse during the difficulties of 1983–4 when the industry briefly shrank and this marked the end of an industry honeymoon period in the UK when the barriers to entering the market were very low. This 1983–4 market dip in the UK closely followed the US market crash of 1982–3. This was the end of the first phase of the UK games industry (Izushi & Aoyama, 2006). During these early few years, the technology was freely available and entrepreneurs were able to self-publish for home computers (Sinclair ZX81, Sinclair Spectrum, Vic 20, Commodore 64 etc.) without having to negotiate with platform holders (such as Nintendo, Sega).

This first-hand account is primarily concerned with one UK games company that was founded in 1979 and then grew rapidly before being sold for £1.25 million in the summer of 1984. The growth of the company can be roughly tracked through its game releases, reviews, articles and interviews in games magazines. However, what was happening within the company and what it accomplished in terms of contributing to the establishment of a UK games industry is a story that hopefully can be better understood through the remembered experiences recorded here, which can be corroborated by games, hardware, product catalogues, photos, interviews and other materials.

My name is Mark Eyles and in 1981, I was the first employee of Quicksilva. I became the Creative Director when it was incorporated and left the company shortly after it was sold in 1984. I am drawing on memories and memorabilia from Quicksilva to create this account. However, this is not just the story of a single company, but rather encompasses one of the beginnings of the UK games industry and also may reflect themes from the start of other industries that have arisen out of new technology. This is the sort of story that occurs again and again as entrepreneurs see a way to turn their passion into a living.

My contention is that the UK games industry was established through the period the Sinclair ZX-81 dominated the home computer market and that the Sinclair ZX-81 established the home computer games market in the UK. The Sinclair ZX-81 built on the success of the Sinclair ZX-80, which is reputed to have established the scope and price of the first generation of home computers (Adamson & Kennedy, 1986). However, the Sinclair ZX-81 was the computer that created a thriving market for games.

The Sinclair ZX-81 was launched in March 1981 (Crisp, 1981) and was a dominant force until after the launch of the Sinclair Spectrum in April 1982 (Warman, 2012). Other home computers, such as the BBC Micro, were launched after the Sinclair ZX-81, but they were arriving in a market that had already been established by the Sinclair ZX-81. Also, the BBC Micro sold for £235 (Model A) or £335 (Model B), the ZX-81 £49–95 (in kit form), £69–95 (already assembled) (Sinclair, 1982) making the Sinclair ZX-81, financially, significantly more accessible. There were other computers available, but the one that dominated the UK market over that period was the Sinclair ZX-81 selling over 350,000 machines through WH Smiths alone during the year after its launch (Adamson & Kennedy, 1986).

The Sinclair ZX-81 was the computer that Quicksilva first focussed on. Before the Sinclair ZX-81, there were simply not enough home computers in the UK to support a home computer game development industry. The companies that had started making games for the ZX-81 before the end of 1981 were the companies that established the UK game development industry. There was a small window of time when the game development industry in the UK went from no one earning a living from independently developing games, to established game development companies with full time, paid employees.

Quicksilva was founded by Nick Lambert in 1979. The name Quicksilva was inspired by a particular guitar solo in a track on the album Happy Trails by Quicksilver Messenger Service.

Quicksilva’s first product was a 3 K RAM card (see Figure 1) for the Sinclair ZX-80 computer which Nick advertised in the National ZX Users’s Club magazine Interface, swapping a 3 K RAM card in return for the advert (Hartnell, Quicksilva, 1982b). The first title released was QS Defenda for the
Sinclair ZX-80, requiring the 3 K RAM card to run. In order to finish this game, Nick enlisted the help of his friend John Hollis who assisted with coding. Together Nick and John worked on a new version of QS Defenda for the Sinclair ZX-81. The ZX-80 3 K RAM card was adapted to work for the Sinclair ZX-81, expanding the RAM to 4 K so that the ZX-81 version of QS Defenda could be run. The 3 K RAM cards were initially soldered together by Nick and sold mail order. In 1981, when the Sinclair ZX-81 and ZX-80 versions of QS Defenda and the 3 K RAM cards were first sold, there were no computer game magazines or shops in the UK. QS Defenda and the 3 K RAM card were initially advertised and sold by mail order; as well as in the National ZX Users’s Club magazine Interface, they were also advertised in the classified section of Practical Electronics. Send a stamped and self-addressed envelope to Quicksilva and we would send you our catalogue.

I joined Quicksilva in the spring of 1981. Nick had achieved some success in selling his 3 K RAM cards and versions of QS Defenda and wanted someone to help build the RAM boards. I was introduced to Nick through a mutual friend, Simon Oldham of Arc Electronics, and turned up at the house Nick was renting in Upper Brownhill Road, Maybush, Southampton. He set me a test of soldering together a RAM board. Assuming this would be easy, I made a complete mess of it and had to admit that I had had very little experience of soldering. Nick gave me a box of long connectors to saw down to the length he required for plugging the RAM boards into the back of the ZX-81. I was in the company and progressively spent more time working for Quicksilva, including moving on from sawing down connectors to learning how to solder. I was the first full time employee (see Figure 2). In these early days, we would get to the end of the week and Nick would see how much money we had made
and then pay me some money according to how much we had taken. I was naive, entrepreneurial and very happy to put effort into this exciting new enterprise.

This entrepreneurial attitude had its roots in the punk music of the 1970s and the idea that anyone could be enterprising, whether it was to form a band or turn an enthusiasm into a business. Further, there were roots in the hippy alternative culture of the sixties and early seventies. The idea that there were near infinite possibilities and everyone had the power to do whatever they wanted. I am not saying that the idea that anyone could do anything necessarily was altogether accurate, but there was an underlying belief in doing your own thing!

There are two other pieces that came together to support the entrepreneurial drive of the 1980s. Firstly, unemployment benefit offered some financial stability while developing entrepreneurial ideas. Secondly, Margaret Thatcher and the Conservative Party had taken power and had decided that business was going to make the country great (AW RC, 2013). One of their 1979 election policy documents spoke of “a determined programme to remove every possible fiscal, legislative, social, planning and bureaucratic barrier in the way of starting up and growing small businesses” (Owen, 2004). The Conservatives seemed to be systematically prioritising business over people. Although not of benefit to Quicksilva, an example of the Conservative’s support of entrepreneurship was the Enterprise Allowance Scheme introduced in 1983 that paid self-employed workers a £40 a week supplementary income for up to 12 months, assisting many people in setting up their own businesses (Blanchflower & Shadforth, 2008). However, we felt about the politics of the time the government’s support for enterprise made for a favourable climate for building a business.

One day, almost by accident, I was working full time at Quicksilva and stopped signing on weekly (to claim unemployment benefit). The business was growing and we were literally receiving sack loads of mail. Nick employed the retired Ellen Holland who lived nearby to come in a few mornings a week to write out envelopes and send out catalogues. Later Ellen stopped working for us and Maureen Twine took over addressing envelopes and sending out catalogues (see Figure 3).

At this point in the company’s growth, we were manufacturing hardware and selling games for the ZX-81 and ZX-80, though for the ZX-80, the only products were Nick’s QS Defenda game and the 3 K RAM board. There were a small number of game development companies in the UK in 1981: Artic Computing, dK’tronics, BugByte, Automata and a few others. The UK games development industry was just starting.

Quicksilva not only had professionally programmed games, but also had the best looking game covers; setting a quality standard that differentiated us from our competitors. For QS Defenda on the ZX-81, Nick had decided he wanted full colour covers. An old friend of Nick’s, Steiner Lund (Lund, 2016), was commissioned to create some airbrushed, full colour artwork. He painted both the distinctive “QS” logo (see the title page) and also the cover artwork for QS Defenda. Nick arranged for a local photography studio to do photoprints of the artwork that we could use as covers. I think this was the first full colour cover for a home developed UK computer game. The initial copies shipped with a folded photo as a cover and a small black and white card listing the loading instructions and controls. After we had been ordering photoprints for covers of our first four games, the photography studio suggested getting covers printed. Dave Gough at Cedar Colour printers in Winchester assisted us in getting our covers printed. Looking back, it seems very naïve to be using photos as covers, but this is a clear demonstration of the way we were operating. Searching for creative solutions to the problems that arose. This is also typical of Nick’s single mindedness when pursuing exactly what he wanted. He wanted full colour covers and wanted them to be of a high quality. There was not initially the money to pay for the colour separations required for full colour printing, so using photos was logical for the, initially, small number of games.

A sound board and character board followed the 3 K RAM (see Figures 4 and 5) along with a motherboard and connector to plug them both into. The games were programmed to take advantage of
these. While our competitors were relying on ASCII characters for their games, we were shipping games that not only had “proper” arcade game sound (using the same sound chip used by arcade games, the General Instrument AY-3-8910 [Videogame Music Preservation Foundation Wiki, 2015]), but also pixel graphics for the aliens and ships. We also released the QS Printerface interface card, designed by Bob Harris (another friend), that enabled people to use the ZX Sinclair Printer with the Acorn Atom computer.

There were no other game developers in the UK as advanced as us; we were producing both a range of games and hardware to enhance them. We had no one to look to for guidance, no one to
We were literally making it all up as we went along. In retrospect it is clear we were trail blazing, at the time we were racing from day to day trying to keep up with the rapid growth of the business. At this time, everything was done by phone, post or face to face. The games industry without email or the Internet seems odd now, but this is how it was all through the 1980s and well into the 1990s. Perhaps part of the reason, we were making it all up as we went along was a lack of business experience and our youth; we were all in our twenties.

My partner, Caroline Hayon (now Caroline Eyles), joined us as Quicksilva’s next full time employee, to help with running the business. She may have been the first woman to work in the UK games development industry. I am not aware of any other women who were working in the industry at the time and Caroline says “in the very early days there were no other women I knew of in the industry” (C. Eyles, (Personal interview, April 19, 2016, Interviewer, M.Eyles). Later when Rabbit Software started in 1982 (Moby Games, 2016). Heather Lamont was one of the founders and the number of women working in UK game development doubled! John Hollis gave up his job at Q1, an electronics company in Southampton, and started working full time for Quicksilva. We were also getting other friends involved, like Chris London who was soon spending all his time as a freelance contractor building the Quicksilva hardware.
The other early games with photoprint covers are QS Asteroids, QS Invaders and QS Scramble (see Figure 6). These, and QS Defenda, were the first titles released. QS Asteroids and QS Invaders with colour covers by Steiner Lund. When Steiner was away from Southampton for a time another friend, Richard Shenfield (Crump et al., 2016), was called in to do the artwork for QS Scramble. Another title available early on was QS Life by John Hollis, a version of Conway’s Game of Life program in which pixels multiply and die according to a simple set of rules (Wikimedia Foundation, Inc, 2016a). This program was dropped from later advertising material.

The progression from backroom to corporate can be seen in the increasing quality of the game covers. Initially, I seem to recall that QS Defenda on the ZX-80 shipped without a cover, just a typed sheet of instructions. Certainly it did not have full colour artwork. The next game released was the ZX-81 version of QS Defenda, initially with a photographic cover, then the first printed cover version. These first printed covers did not meet the quality we were hoping for. Nick in particular was hoping for a more vibrant and shiny end result; though we did ship games with these first printed covers. QS Defenda was later released with a ZX-81 themed cover (red picture border and flash on the spine), establishing an identity for all the ZX-81 games that Quicksilva released (see Figures 7, 8 and 9). Even the cassette itself went from having a label stuck on to having the name of the game directly printed onto it in the final version. The lead-in tape on the final version of QS Defenda was deliberately selected to be green (Nick’s favourite colour, when younger he was sometimes known as the “Jolly Green Giant”), though perhaps a lighter, more yellowy green than would have been perfect.
In 1982, Nick had to move out of the house he was renting in Maybush. Quicksilva moved to a shop in Northam Road, Southampton that was owned by John and Polly Randall. They had previously sold leather belts, buckles and bags there, but had stopped trading. Myself and Caroline used the shop counter as a desk (see Figure 10). We had a phone and some room for stacking up boxes of games. The only initial problem was when Rosy Maguire practiced drumming in the basement and we could not hear anyone on the phone! In the Northam Road days, myself and Caroline were running the office, while Nick and John were busy programming. Nick had moved to an upstairs flat in a house in Malmesbury Road, Southampton; above John who had the downstairs flat, with his wife Min (Carolyn Hollis). This was before the Sinclair Spectrum had been released so we were mainly selling ZX-81 games, mostly by mail order, though the first shops were appearing, led by Buffer Micro in Streatham, London. John Rowland at WH Smiths had become interested in selling computer games and
approached us. Nick met with John Rowland and when he heard the discount they were asking for declined to do business with them, in strong terms. We were also being approached by overseas companies who wanted to distribute our games. That the business side of things was growing beyond the level we could cope with was clear. At our weekly company meeting in John’s flat in Malmesbury Road, we (me, Nick, John and Caroline) discussed how we would prepare for the future and remembered this guy who had called on Nick, in Maybush, to sell him insurance. This guy had shown an interest in what we were doing and he wore a suit, so it seemed like he must know about
business. Caroline suggested we approach him (Eyles, 2016). His name was Rod Cousens and he was rapidly employed to set up an overseas sales network for Quicksilva, which he did, very efficiently. His business knows how and enthusiasm resulted in him becoming invaluable almost overnight and soon he took on the role of managing director. When we heard about the number of games WH Smiths were ordering, it was Rod Cousens who spoke to John Rowland and smoothed out our relationship with WH Smiths. We ended up selling a lot of games through WH Smiths.

In January 1982, we had a stall at Mike Johnson’s first Microfair at Westminster Central Hall (Johnston, 1982) (Wikimedia Foundation, Inc., 2016b) along with 70 other exhibitors (not all of them selling games). This is an indication of the size of the UK game development community at that time, enabling a very rough estimate that there were under a 100 people working full time in the UK computer games industry at that time, perhaps less as there were a number of people developing and selling games in their spare time, as a hobby. The magazine Sinclair User was launched in April 1982 (Sterlicchi, 1982). Counting the adverts in the first issue, it is possible to get an idea of the number of game development companies operating in the UK: four full page, five half page, seven quarter page and four classified adverts. 20 adverts for games (see Figure 11). The technology of the day, and the hobbyist nature of the emerging computer games market, is indicated by the magazine asking people to send in “typed (or beautifully-handwritten) articles or programs”. £10 for each program and £50 for each 1,000 word article (Sterlicchi, 1982).

These were the trail blazers who advertised in the first issue of Sinclair User:

- Full page
  Bug-Byte
  Quicksilva
dK’tronics
Control Technology

- Half page
  Macronics
  Hewson Consultants
  Video Software
  Michael Orwin
  Microgen

- Quarter page
  JRS Software
  Automata
  Artic Computing
  Richard Shepherd
  Leisure Games
  J. K. Greye Sofware
  Simon W. Hessel

- Small adverts
  Second Foundation
  Digital Integration
  Bridge Software
  Algor

There were five key people who contributed to Quicksilva’s success in the early computer games industry and set us ahead of our rivals:
Nick Lambert was a charismatic leader with big ideas (see Figure 12). These same personality traits can be seen in many successful people; they imagine a fabulous future and then insist that the future conforms to their dreams. They are always convinced that they are right and will not countenance anything getting in their way. For example, Clive Sinclair of Sinclair Research “allowed his personal obsessions to determine corporate strategy” as he single-mindedly pursued his vision of the future (Adamson & Kennedy, 1986).
John Hollis was a genius with electronic hardware and code (see Figure 13). He designed the range of Quicksilva hardware, which put us ahead of other game developers who were starting to appear. This skill with electronics enabled him to, for example, mock up a Spectrum prior to its release so that Quicksilva could have working games before the machine was even released to developers; when he got one of the first batch of Spectrums, he identified a hardware fault that resulted in a recall to fix them (Bee, 1998). The status that Quicksilva held at this time is exemplified by the rumours that we were going to release our own console. John’s programming guru skills meant that we had some of the best games; also John’s programming guru status was part of what attracted other programmers to Quicksilva with their games.
Rod Cousens was a skilled business man who turned every negotiation into a winning situation for Quicksilva (see Figure 14). He could talk business and put in place the network of contacts required to make us race ahead of our competitors. Caroline Eyles (née Hayon) recalls, “he had the business experience none of us had, we were all kind of making it up as we went along and just “playing the game” and learning as we went along; whereas Rod kind of had a bit of a vision of how things could be and so helped guide us from there on,” (Eyles, 2016). Rod was the person who had the contacts to set up Quicksilva Inc. in the USA. After Quicksilva, he proved his business acumen by becoming, among other things, CEO of Acclaim, then Codemasters and in 2015 Jagex (Rod Cousens, 2016).

Myself (see Figure 15) and Caroline (see Figure 16) were responsible for the day to day running of the company. I remember when we were working at Northam Road regularly getting a headache an hour after arriving at work from the stress of having to juggle so many imperatives. The workload was intense; we were managing everything from mail order, manufacturing (hardware and software), distribution, business enquiries to customer relations and helping with design, advertising and PR. On top of all this, we were assisting with strategic planning and figuring out what this industry we were creating was all about. The games industry in the UK at this time was rather like a secret club; if you were playing computer games and tinkering with computers, you were on the inside. The population at large seemed puzzled and bemused by the whole thing. If you tried to explain what was happening to someone outside, this club they often had extreme difficulty in understanding. They just thought it was something trivial to do with computers.

The start of Quicksilva, and the UK game development industry, lay between the beginning of arcade gaming with the release of Pong in 1972 and the video game industry crash in 1983. This was a time of great economic upheaval, with a decline in traditional consumerism as there was “a move from an industrial, production-based economy to a service-based, consumer economy” (Kocurek,
That the value of Quicksilva products lay in the code rather than the physical objects (cassettes) that stored the code was very clear to us. Prior to the release of the Sinclair Spectrum, there was a decision to stop developing hardware and focus on creating and publishing content.

At the start of 1982, Nick was spending time running the business and also working on a QS Defenda game for the soon to be launched Sinclair Spectrum. John was also working on Sinclair
Spectrum games; the arcade hits Space Invaders and Asteroids inspired Quicksilva games Space Intruders and Meteor Storm (see Figures 17 and 18). Space Intruders featured the first cover blurb found on a computer game in the UK. As an aspiring writer I told Nick I could write a short piece of fiction for the Space Intruders cover. To set the scene and enrich the game, I wrote a couple of hundred words of colourful and trashy sci-fi. I believe this was the first time in the UK a computer game was enriched with some backstory, supplied in the packaging. After the success of this first story, I continued writing fiction for all the Quicksilva games. These stories were popular and were part of what made Quicksilva unique, setting us apart from competitors.

Figure 17. Space Intruders cover.

Figure 18. Meteor Storm cover.
The first Quicksilva ZX Spectrum titles were advertised in colour on the back of the first issue of ZX Computing, dated “Summer 1982” (Hartnell, ZX Computing, 1982a) (see Figure 19). This was the first time a UK game developer had advertised in full colour. Bug Byte’s adverts had featured a single “spot colour” and had some text in blue, but Quicksilva was the first to use full colour. The artwork for this advert was by Rich Shenfield, with Steiner Lund’s logo on the back of the chair in the spaceship cockpit. Notice the ZX Spectrum control panel. The intention was to make it clear we were selling a whole sci-fi fantasy world that could be accessed through playing Quicksilva games. I was very clear that the games would transport the player to exciting new worlds. The cockpit screens feature
Space Intruders, Meteor Storm and Defenda. The Defenda game was never finished; perhaps in part a result of a certain amount of perfectionism from Nick, who wanted to create a version of the arcade game Defender that was very close to the original. We had an arcade Defender machine in the office so we were very familiar with this game. The naming of the games was both to distance them from the arcade originals and also to differentiate them from competitors’ versions of these titles.

The move from the small classified adverts that Quicksilva initially used to sell games to full colour, full page adverts seems to be a robust indication of how the industry had grown over a couple of years. The ZX-81 had become a mass market computer in the UK, in particular through the involvement of John Rowland and WH Smiths. The game development industry in the UK was emerging from backrooms and bedrooms. The underlying structure of the industry was in place with the role of game developer and game publisher crystallising out. Independent game development studios were starting up, publishers were emerging, though still normally with their own in-house development teams.

Quicksilva started publishing and distributing games for lone programmers and game developers. The company went on to launch a sister company in the USA, held the UK game industry’s first press launch (for 4D Timegate) and with Bug Byte held the first UK games industry awards ceremony, “Quick Byte”. There is a sequel to the events recorded here waiting to be written. Also in the sequel, a whole new cast of characters arrive. Paul Cooper, Mark Tilson, Dave Rowe, Susan Clifton, Rosemary Hancock, Heather, Chris Blythe, Sean de Bray, Carl Ziegler, Sandy White and a host of others. We re-release the seminal title Ant Attack and get chased by software pirates in Singapore.

By summer 1984, the company had been sold. Nick and John had moved to Guernsey, Mark and Caroline had set up a holography studio, Holografix, and Rod had launched game developer Electric Dreams. The games industry was starting to carve out a significant entertainment niche for itself as the suits arrived.