



GameDev Story:

Moonstone

A Hard Days Knight

■ Interview: Petrichor & Tomxx



Rob Anderson is Canadian video games designer and the creator of the one of the best Amiga games "Moonstone: A Hard Days Knight". He spared a moment to tell us more about the game production when Scrum, Agile methodologies were not existent and when the back-up copies were made on 3.5-inch floppy disks. Rob talks about the controversies associated with the game and how the sales of Moonstone killed the chances for the sequel.

Let's start off by clarifying your current occupation. What do you work on nowadays?

My career has been a long journey of trying different career paths. The past several years I haven't done much regarding game development, but I have dabbled in some new technologies (VR) and electronic toys for kids, and some embedded stuff. I am currently working with PlayStation hardware and exploiting what it can do.

I have in my spare time been working on several new game designs and ideas and have been using my time out of industry to build up the tool pipelines and needed resources to build out a series of

games. I hope to pursue it in the future, but at this point it is simply a hobby.

How did the gaming industry treat you after Mindscape?

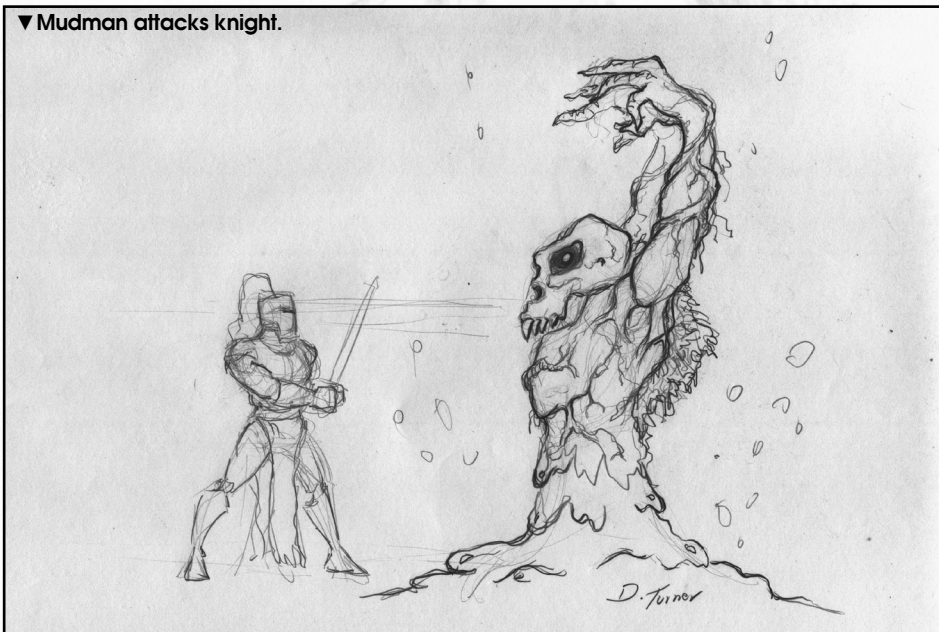
Overall the gaming industry has treated me well and I have worked for several big publishers, such as EA and SEGA in various roles and developed some good games. I haven't had the opportunity to repeat what I did with Moonstone, where I maintained a lot of creative control and direction over the project. While at other studios and publishers I was more specialized and focused in one area, such as motion pipelines, AI, and for most part I worked on franchise projects. I learned

a lot working with these bigger teams and within a publisher business and met a lot of really talented people.

Ok, let's go 25 into the past. You were the lead designer and a programmer for Moonstone. It's not easy to combine these two functions, but I suspect game development back then was different. What exactly were your responsibilities for while working on this brilliant title?

I was also doing artwork, and animation for the game as well, but I didn't see it as combining the roles but rather a process to create a game. Mostly I enjoyed doing the 3 roles, where I would do 3 weeks of programming and then switch over to artwork which would offer a fresh pair of eyes on how things were looking. I will admit it was difficult at times because of the amount of pressure to finish things quickly and mainly this comes from the business end of things. The way games are done in today's generation are only different due to higher expectations and features (i.e. network, big storylines, complex hardware), but budgets have increased as well to achieve that. An artist's annual salary in today's game industry exceeds what Moonstone's entire budget was at the time. Fortunately I brought on peo-

▼ Mudman attacks knight.





ple to help that I had worked with prior and had a lot of respect for, so it was a stress free situation working them.

How big was the team behind this project and how long was the game in production?

The team was very small compared to today's standards. There was no cohesive team that was together from beginning to end and I made the game primarily at home in Canada. Everyone was a contractor that was brought on for their talents. The team consisted of Todd Prescott, Kevin Hoare, Dennis Turner, and Chris Gray. While I was working on the game at home in Canada, Todd was at university, Kevin was doing his own thing, Dennis was working for multiple people, and Chris did the contract negotiations between myself and Mindscape.

When I travelled over to England to finish off the project, Mindscape loaned me Steve and he contributed to some in-game artwork and they brought on Richard to produce the music. I had all of the scenes programmed by that time and Richard scored the opening and closing scenes to music and put in the rest for the towns and various other bits. When putting together the sound effects, I had already created some for the game and we ended up keeping several of them with only a little clean up here and there.

Mindscape had several people that I worked with to get it published (Phil, Richard, and Steve to name just a few). My first concept artwork I did was done in late 1989, and overall the development took 1.5 years with people coming in at different points in the game. I was working on it for the entire duration of the project and it was my full-time gig.

Seeing how complex the game is (gameplay mechanics, animations, designs, etc), I imagine you were overwhelmed with the amount of work. How did you guys manage to deal with it?

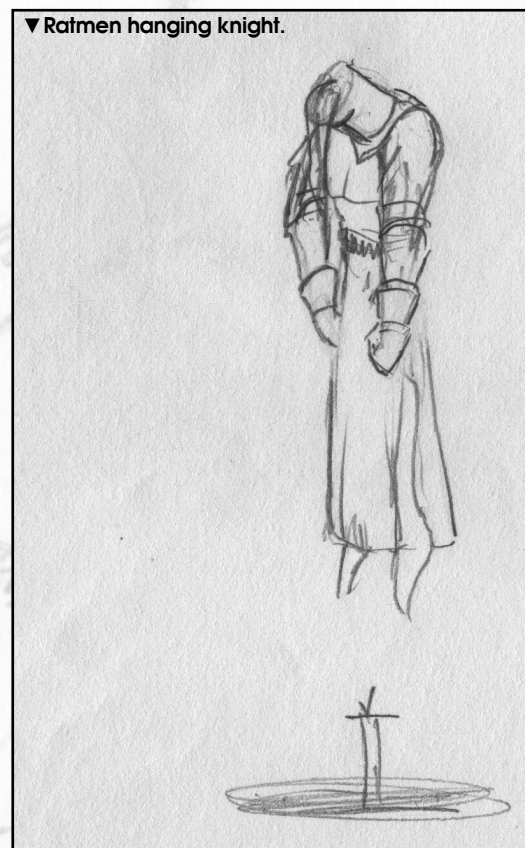
It was overwhelming at times, and many long hours were put into the project. Kevin really helped with the technical because he overwrote the Amiga OS which allowed us to take over all of the Amiga hardware resources. This has great benefits, but also opens up compatibility issues when Commodore changes hardware, but for the most part it was huge advantage in getting all of that memory and control over what the system was doing.

Everything was written from scratch, I first started developing tools to manage all of the assets that game would have, being animation tools, some simple scripting, level design, and an entire art and animation pipeline.

I have a background in classical animation, so all of the animation was drawn on an animation light table, and then to ensure the best

line quality I used a drawing tablet called an Easy1 which was available for the Amiga. This was a little slower than the digital methods, but the cleanup was non-existent and it gave me the quality of line that I wanted. We used Deluxe Paint III to do all of the animation and then the images went to the tools were written which compressed the data and al-

▼ Ratmen hanging knight.



▼ Concept of Great Forest.





lowed me do timing, collisions, and some gameplay scripting. For the time, I think we topped all games for the most animation frames in a game.

Programming was all in 68000 assembly, and game play was often done by way of trial and error which I think is one of the better approaches to game development. There is no way to determine fun unless you try it out, and then tweak it. I also wanted to make sure it was entertaining to both winning and losing, which is why I added so many death scenes which were a lot of fun to come up with.

The Intro is one of the most impressive in Amiga gaming history. Who came up with that idea?

Thank you for that, and it was very much a collaborative effort. I was still studying a lot of classical animation at the time and wanted to have a nice bookend opening and finale to the game. Todd and I had already discussed the druids, and Stonehenge so we had our setting and I worked with Dennis on the storyline and how we can put it all together. I attribute Dennis a lot to creating the drama and being able to break down the scene into something that was manageable on the Amiga at the time. I used the tools I had developed to choreograph it all together into code. Once I got over to England and met with Richard, who did the music and sound effects, we discussed the music and what I felt it should be for the scene and he immediately saw what I was going for and did a fantastic job scoring it.

Did you only work on the Amiga version or were you also involved in the DOS port?

I only did the Amiga version, and Mindscape had a company in mind to do the port. While I was in England I met with them for one meeting,

but Mindscape managed it and I had little to do with it. I only delivered the assets and explained how they were put together into the game using the tools that I had developed on the Amiga.

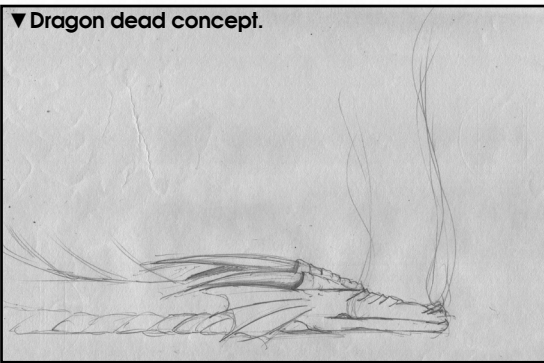
The game had a tendency to crash. Were you aware of this before the release?

Crash, what crash??? Yes, I was aware of a rare crash, but I wasn't sure where the crashes were coming from. There was a lot of pressure to release Moonstone as it had gone over the projected development time and unfortunately we only had a couple of days to test it before it went to duplications. I was in England to help get it completed, and it wasn't until it went to shelves and I was back home in Canada when I found the bug and fixed it. I know there was another crash regarding some Amiga 500 computers that we also fixed, and it was lucky that one of the guys at Mindscape happened to have one of the rare Amiga 500 that had the problem and we were able to diagnose and fix it.

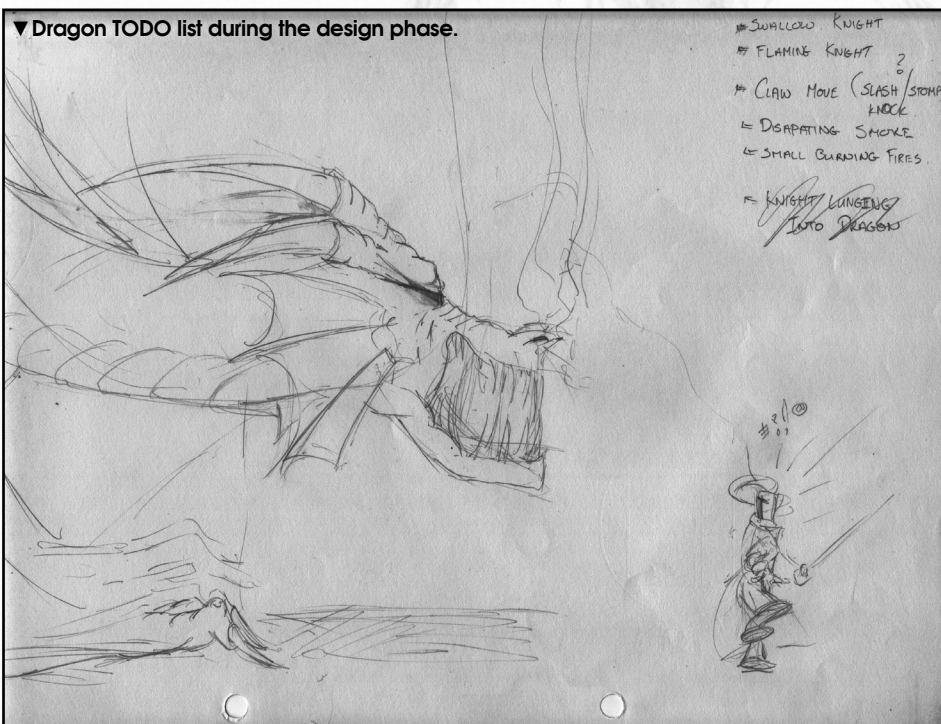
The game should have had another couple of weeks of testing and I am sure we would trapped all of the issues.

How did you organize your work? It must have been totally different on how we work on games today, no internet, sprints, scrums, Agile... Did you only work from the office or added some legendary night hour's shifts?

▼ Dragon dead concept.



▼ Dragon TODO list during the design phase.



Concept & Design Art

Design concepts and development notes were all recovered by Rob and delivered together with the interview document. We're extremely happy to present these unique images, especially that some of them still present original notes dated back to the development days.



I worked from home in Canada and never had an office, more of table in a corner. I would often work through the night if I got on a roll, but I usually wrapped up around 3am or sometimes I would stay up later to call Mindscape and bring them up to date on what was happening. We had a 5 hour time change.

I had a system for each of the monsters, and how I worked on them but mainly it was a monthly A&O for myself on what I needed to get done, and what got completed. Sometimes I would go backwards and update tools which would require updating some aspects of the game as well, but it was often for the better and streamlined other characters that were still to be drawn, and or programmed.

Meetings were done by old-school phone calls to England usually at 5am, FedEx, and a BBS board. When I met with Dennis or Kevin, we would sometimes meet at my house, or I would go to theirs. Artwork and code was delivered on 3.5" floppy disks and because source control was non-existent, I had a lot of backup disks of the game.

This game's medieval fantasy lore really shines out! What was your mystic design based on? Any inspirations for the background history, landscape, individuals, monsters, etc?

I played a lot of D&D for years, so I will attribute a lot of the design to playing that game with friends. I also read a lot Conan comics, Edgar Rice Burroughs novels, and enjoyed many movies that followed those genres. I am a big fan of Monty Python and the Holy Grail and the humour that goes into that. Both Terry Jones and Terry Gilliam movies were also great inspiration.

Most of the landscape was designed like many of my D&D campaigns that I had written prior to doing this game. There was town, a place to make some money and buy things. The monsters were inspired again by D&D, but when I was drawing them they were a combination of a lot of things, but basically I created them to follow some sort of game mechanic and how the knight would interact them. Many monsters never saw past the drawing table as it was nearly impossible due to time and complexity to make them work for the game. I have included a couple of drawings which were for the wetlands (pixies) and the grasslands (trogg riders).

Do you think your concepts inspired some future generations of designers?

Yes, I still get emails from people saying that they are in games because they played Moonstone and others have shared their stories of playing the game with their friends. It is a nice feeling knowing that something I worked on had such a positive impact on people.

The game itself is very brutal and gory, did it cause any trouble for you, and do you think it affected the game in any way, or perhaps added to the popularity? (Game banned in Germany and condemned in the USA are just examples.)

When I did my initial pitch and I created an animation of a Knight slicing a Trogg into two, I was kind of hesitant and wondered if it was too much. However, once I looked at it with some fresh eyes and got other feedback I was ok with it. I definitely think it helped make the game more popular and created a following, similar to some horror movies.

The gore did hurt potential sales because North America deemed it too violent for the general public and both SEGA and Nintendo liked it, but didn't want to publish it because of the gore. Since the game industry was moving in that direction it did hurt me and the chance for a sequel. I did create the gore switch which was a novelty feature and a hope that would alleviate the perceived public's fear of blood, but in the end

▼ Early concept for troll.





it didn't change their minds. I don't think anyone played the game with gore switch OFF (at least to my knowledge).

How did the final product meet your expectations? Did you have to do any sacrifices or tough calls?

I really liked the final product, and the only thing I really wished for was I had more testing time to get rid of those bugs.

I made sacrifices to cut features and some monsters just due to time but in hindsight I don't regret it. I felt the game was at a good stage and I was getting good feedback from people that were playing it while I was wrapping it up. Because I was so close to the game, it was hard for me to judge things from a fresh pair of eyes and that is why the trip to Mindscape UK was so valuable.

My only big sacrifice was the final level when you fought the demon, I really wanted

that to be a bigger build up to that fight and have more drama when getting ready to fight her. Perhaps when I do the sequel / remake that can happen.

So, if you were about to work on a sequel, what would your dream Moonstone be like?

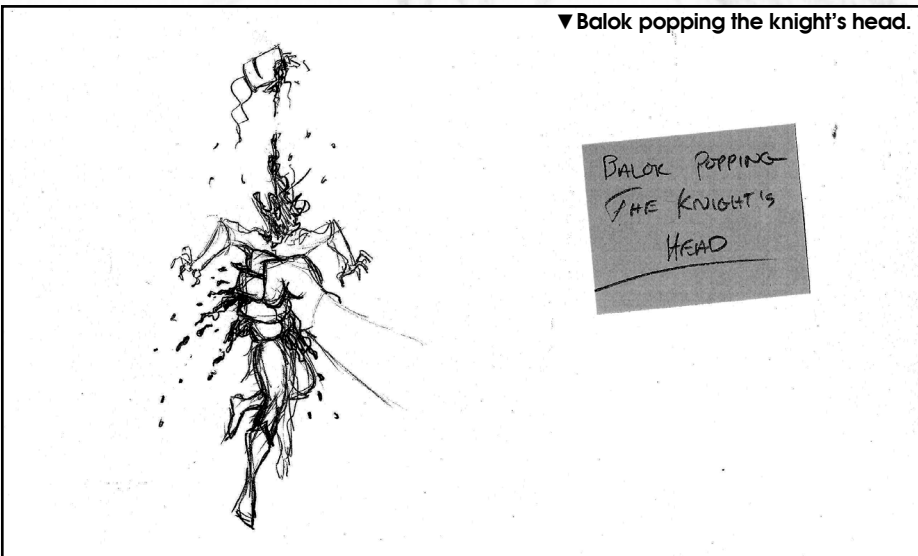
Funny you should ask that, I have been working on a design but it is more of a remake than a sequel. There are several items that I wanted to expand on in the original Moonstone universe. I wanted the world to be a little larger for exploration, more encounters and monsters to interact with. Perhaps revive some of the monsters that are on the floor.

Knights on horses is something that I have thought about many times, more types of magic, and curses and expanding on the final stages of the game. I would like to expand the combat a little if the knight has different swords, and make for more visual variety in the characters when they bought different armour. A network game where 4 players could all play together. Mindscape did ask me to write a design for a sequel, and I had completed a Moonstone II design but it never moved past the word processor.

▼ Beast concept.



▼ Balok popping the knight's head.



Wow, a remake sounds amazing! What would be the target platforms and tentative schedule?

I don't have a particular platform or schedule in mind and it is simply in the draft stages of development. I have started some prototypes for various components, but primarily I haven't setup a clear goal for completion. Primarily I have been working on a revamped design for the game and looking to add/enhance elements of the game.

Moonstone was originally released as an Amiga game, why did you decide to go for this platform? We – Commodore maniacs – believe that this game took all the best from 16-bit systems.

Thanks for that, I really tried to take advantage of the system the best I could. It was always my computer of choice even though people were starting to lean towards PC at that point. Being an artist, it appealed to me for the graphics, sound, 68000 assembly language, and a great machine overall. I had been using the Amiga for several years at that point and thought I would be able to do my best work on it. I cringed looking at EGA and CGA games at that time and had no interest in working on those systems. VGA was looking pretty good, but I never cared for Intel assembly. I don't feel that anymore today, and for the most part game development doesn't dwell in the world of assembly unless you are optimizing.

Do you feel nostalgic towards 80s/90s gaming culture called retro nowadays?

I sometimes miss the simpler game mechanics and designs at times and I really enjoyed the platformers and 2.5D sprite games of yesterday. Some mobile games are reinventing



these style of games which are great fun, or they are being integrated into side games/ easter eggs in larger scale games on consoles.

Back in those days, games used a 8 directional joystick/ d-pad and maybe up to 3 buttons, so naturally those games were designed for that type of control and designers were limited in what the user could do. Now with dual analogue, triggers, multiple buttons, touch screens, VR, and other things it has opened up new ways of interacting with worlds and characters in games.

I am happy to see retro coming back and being seen by a new audience at indie conferences, expos, and app stores. I think in the 80/90s Cinemaware, Bitmap Brothers, and Psygnosis, just to name a few made some of the best games (IMO) on the Amiga. However, I really enjoy today's games and the more complex consoles, but I do think some studios are overthinking storyline over gameplay and that is just my small point of view. I fondly remember playing Battle Chess, Stunt Car Racer, Barbarian, Shadow of the Beast, Lemmings, and many other ones.

Do you still own any of the classic 8- or 16-bit computer?

Unfortunately no, I wish I still had my Amiga 2000, which I wrote Moonstone on and actually archived those hundreds of 3.5 floppy disks, but because of too many moves and lack of storage space I had to give it up some time ago. It would be nice to boot up all of those old games once and while, but I suppose if I looked hard enough I would find them on emulators.

Did the success have any impact on you and your future career?

Yes, I got lots of interest after completing Moonstone and a lot of it was around a sequel or new ideas that I had swimming in my head. I had written a couple of game designs however none of them stuck to go into development. This was mainly due changing markets and hardware; the landscape changed and I went to work at other development studios producing their game projects. Having Moonstone helped give some cred and earn the trust in my team. A lot of engineers liked the fact I had programmed games and could talk specifics with them about critical issues, instead of just asking "when will it be done?"

How was Mindscape Interactive back then? Good place to work on or another corporation with massive business goals? Do you keep in touch with people from your old office?

I really liked working with Mindscape, however I wasn't actually an employee of Mindscape and only worked at their offices during the last part of the game. I flew to England near the end of the project to wrap up testing, do some PR, a trade show and get the game out to the shelves. That ended up being about 3 months, where it was originally intended to be 3 weeks, but I had a lot of fun and it was a great experience. I really liked all of the people that I worked with at Mindscape and made several friends that came out to visit me in Canada afterward. I should really try and reach out to some of them as it has been quite some time since I last communicated with them.

Can you share any cool stories from your software development past?

I managed to be in this

industry before it became what it is today. CES was the first video game tradeshow and was held twice a year in Chicago and Las Vegas, and then it became E3 in LA and some fantastic parties put on by Sony, Nintendo, SEGA, and Microsoft (to name just a few). It was never normal compared to most careers, and I still enjoy it today.

Aside from lots of late nights, which are a little blurry now I have had the unique opportunity to go and stay at places, meet some great people, that I never would have normally because of games industry and all of these have too many stories to recall.

I still find it amusing that Moonstone was banned in Germany, but it appeared pirated on German BBS for downloads (with bugs fixed) before anyone else. When all said and done after Moonstone, I remember several of the PR staff at Mindscape asking me to make a game that everyone would like to play.

Is there anything you would like to say to our readers and fans of your game?

I want to say thanks for the amount of compliments and stories that I get about the game. I wrote the game so friends could play together and I am happy to have made something that was enjoyed by so many people. I have received fan emails/ letters from parts of the world that I didn't know the game was even in. I would like to thank Rob Taylor for setting up the moonstone tavern website and keeping up with fans of the game and giving them a place to voice their stories about the game. I have seen established and up and coming artists re-imagine moonstone artwork which I think is incredible.