

TO LOVE A LEMMING

If you were an Amiga gamer on Valentine's Day in 1991 perhaps you'd sent a card to that girl you had always fancied but never had the nerve to ever ask out. If you were lucky, you may have even got to go out on a date that evening. However, if you were truly fortunate you'd have been sitting at home playing DMA Design's superb *Lemmings*. Dundee, Scotland-based DMA's mammalian lateral puzzler appeared on the Amiga on 14 February 1991, and within months had also cropped up on the PC and Atari ST. Soon it would migrate to consoles, and then there were the sequels... it was the start of something big.

The Scottish developer had already dabbled with the shooter genre and released the likes of *Menace* and *Blood Money*, but *Lemmings* was to be a step (or rather, hundreds of little steps) in a new direction – the puzzle genre.

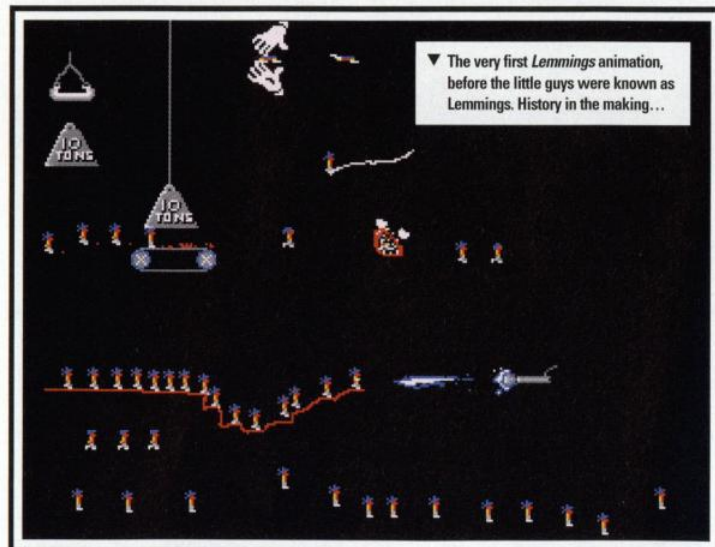
Lemmings' conception harks back to 1989 while progress was being

made on DMA's excellent *Walker*. Scott Johnson was working on *Walker*'s graphics, and was challenged by Mike Dailly (*Lemmings*' programmer before Dave Jones took over) who felt that the 16x16-pixel characters Johnson was creating were too large and could be shrunk.

Before long Dailly had created a set of characters that conformed to an 8x8-pixel block and had them being squashed by a 10-ton weight in a simple animation. Gary Timmons (*Lemmings*' level designer) added several more implements of destruction: a cannibalistic clown, a pair of crushing hands and a rotating device of death and the hilarious animation was complete. "I modified the movement of the little figures to make them move more smoothly and added the further animations," says Timmons. "The potential was seen to develop this into a game, and so some tests were done where we saw how many of the little figures could be displayed on screen at once."

It was Russell Kay, author of the PC version, who first saw the animation's

The much-loved *Lemmings* is one of the most famous puzzle games of all time and has spawned countless imitations as well as numerous sequels (some great, some not so great). Eager to find out more about this classic title we were able to track down some of the original DMA team and take a walk with them down memory lane.



potential. Kay was also the first person to refer to the characters as Lemmings, and by September 1989 Kay had a demo running at that year's PCW show. The demo itself consisted of a single screen and featured Lemmings walking across a landscape; once they reached the end of the screen, they simply re-appeared on the other side.

Although the team was convinced *Lemmings* could be a hit, getting publishers to share their vision was not so easy. "We knew we were onto something special and it was really a matter of persuading publishers," recalls Kay. "We were downhearted when everyone – [eventual publisher] Psygnosis included – turned us down. It was only when we had most of the levels finished that Psygnosis realised the potential of the game and eagerly embraced the project."

LET'S GO!

Lemmings may have started without a publisher, but the development time was relatively stress-free and caused DMA few problems. "The actual game took around a year to finish," confirms Dailly, "and to be honest, there was nothing at all that tricky from what I can recall. The main thing was the number of Lemmings, and I think that this was dictated by the PC version, although I believe the Amiga could have had more."

It's a view that's shared by Timmons. "The design, coding and animation of the Lemmings took several months, while the main level design took another few months, then a few months at the end to refine the levels and tweak the difficulty curve," he confirms. "There were no serious difficulties or problems

during development, but the solid metal collision detection was a tricky part of the game to work out and is one aspect that I think could have been done much better [and it was in *Lemmings 2* and *3*]."

Unsurprisingly, the trickiest aspect of *Lemmings* was its level design, but maybe not in the way that you'd expect. "The main problem was that we had all these really hard levels but no easy ones," explains Dailly. "So Gary set about making simple ones, either by making easier versions of hard ones, or brand new and simpler levels. This, I believe, is where many games fail today – they don't spend the time making a learning curve. It's also one of the reasons why I think the game did so well."

Timmons agrees. "It wasn't hard to put down some blocks in the custom-made editor to make a level, but actually making a level with any sort of substance could be difficult," he explains. "Sometimes levels would turn out to be much easier than designed by taking another route and

would then be reworked to prevent this from happening. Other levels could be done in many ways, but some had certain critical points that needed to be done just right to be successful. We tried to put in a variety of different styles of puzzle to avoid the game being repetitive, including levels that used graphics from other games, which I thought was a very clever idea."

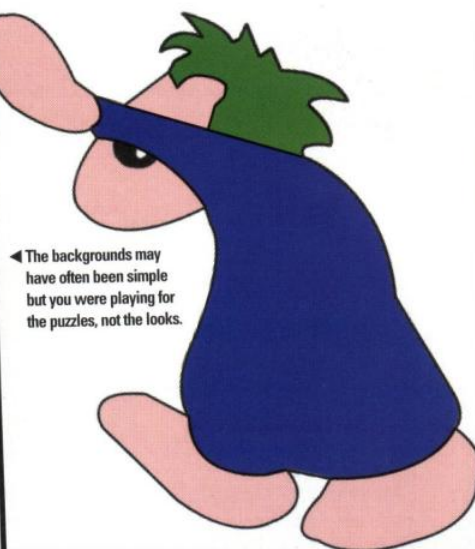
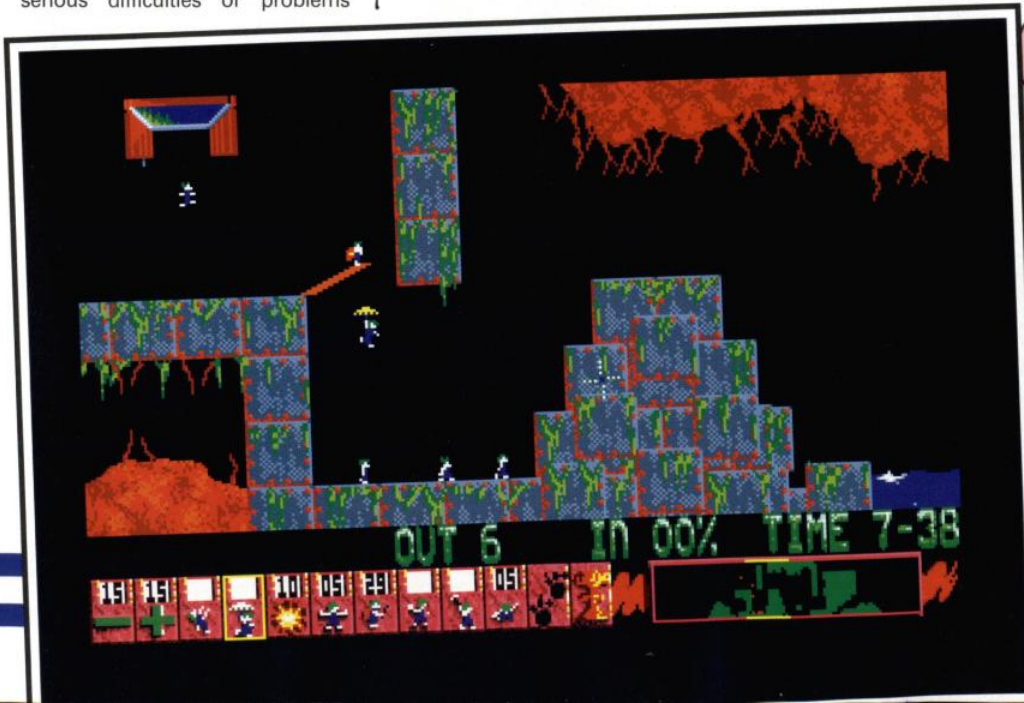
A game like *Lemmings* requires plenty of playtesting and for Dailly there was nothing more satisfying than seeing someone get flummoxed by a puzzle DMA had created. "We did manage to fox Psygnosis now and then," he smiles. "You could always tell the levels Gary did, as they were very 'minimal' – a few blocks and that was it. Levels by Scott and myself tended to look more like pictures. Scott's tended to be packed better than mine, but I liked drawing huge levels – 'Hunt the Nessy' and 'The Steel Mines of Kessel' were mine, for example. I also loved making the user do multiple things at once. 'The Fast

OH NO! NOT 3D



As 3D continued to gain popularity, it was inevitable that the Lemmings would follow suit and, sure enough, *Lemmings 3D* was released for the PlayStation and PC in 1995. It never received the same acclaim as the original games, though, mainly because it was rubbish. "The 3D version of the game never hit the mark," says Russell Kay. "I think that *Pikmin* is closer to a 3D *Lemmings* than anything else that claims to be, although I'd love there to be sequels worthy of the name in the future." "3D *Lemmings* was simply horrible," agrees Mike Dailly. "It might work better now, but again, it needs more work than simply doing *Lemmings* in 3D. I wish someone at Sony would actually try." So do we, Mike, so do we...

Classic Game Lookback



◀ The backgrounds may have often been simple but you were playing for the puzzles, not the looks.

TO LOVE A LEMMING

▶▶▶ Food Kitchen' was mine, and required the player to jump back and forth to eventually complete the level."

BREAKING OUT

Perhaps one of the most exciting prospects of *Lemmings* was the level creator that DMA had planned. Sadly, it never saw the light of day. "There was some discussion at DMA Design to bring out a *Lemmings* level editor," reveals Timmons. "It could have been a lot of fun but there were a lot of conditions that had to be met when making a level and it would have been easy to make levels that were impossible to complete and this could have caused a lot of frustration, so in the end we never actually did it."

A CAST OF THOUSANDS

YOU'D BE SURPRISED HOW MANY PEOPLE IT TAKES TO MAKE A LEMMING...

Lemmings had a number of developers, although as Dailly points out on his website, many took unfair credit – "the number of people that claim to have been involved in the original *Lemmings* is huge, the actual number isn't," he says. Nevertheless, the *Lemmings* team was still fairly large for the time. Dailly was the original programmer (although Dave Jones completed his work), Russell Kay was hard at work on the PC version, while Gary Timmons worked on the level design. The rest of the team consisted of Scott and Brian Johnson, Steve Hammond, Brian Watson, Tim Wright and Tony Williams. Although Scott and Brian Johnson (who are related – they're brothers) seem to have vanished without a trace, many of the team keep in touch and have moved on since leaving DMA. Gary Timmons is at Denki, Russell Kay is now managing director of Visual Science, while Dave Jones set up developer RealTime Worlds in 2002, where he's since been joined by Mike Dailly. Brian Watson has moved further afield to work for Midway in Texas.



While *Lemmings*' level design is adored by many, it's the incredibly chirpy music that most people instantly recall. Remixed variations of well-known tunes, they're instantly recognisable and perfectly complement the on-screen insanity. Worried about securing the licences that would have been needed, Brian Johnson decided to remix timeless classics (*London Bridge* and *How Much Is That Doggy In The Window?* among others) that were out of copyright. "In those days you didn't really bother trying to secure licences," reveals Dailly. "However, it was just the start of worrying about it, so the copied music was eventually dropped and the irritating ones were quickly added. I don't even think anyone actually thought about just doing a set of totally original tunes, which is very odd."

One musical option that had to be dropped could have been terrific, but those licences got in the way again. "We originally wanted to have lots of Sixties TV show themes running through the game, not just in the music but in the actual animation and level design," says Kay. "Unfortunately, we could not get any of the licences involved. I have a particularly fond memory of the *Mission Impossible* *Lemmings*..."

The music may have been rather unconventional, but the look of *Lemmings* was a lot more straightforward, some might even say basic. As always, though, there was a reason behind each decision and in this case it was a technical one. "The way the levels worked with *Lemmings* walking over the foreground meant that they had to look 'basic' since they would have walked over the backgrounds too," reveals Timmons. In a way, the simple backgrounds accentuated the *Lemmings* themselves and left you in no doubt that they were the real driving force behind the game, a fact that was further cemented by their superb animation.

The famous green hair came about not just through choice, but also because of the PC's EGA palette, which only displayed 16 colours on screen at one time. "We decided that green hair was much nicer than blue," confirms Dailly.

With *Lemmings* nearing completion, DMA found itself having to drop a few features from the game

before it hit the shelves. The biggest omission on the PC version was the excellent two-player mode that would be enjoyed by so many Amiga owners. The team had spent a lot of time playing the likes of *Stunt Car Racer* and *Populous*, and Dailly even went so far as to rig up a system so he could use one computer to control the mouse on the other. Due to the Amiga's ability to have two mice plugged into it, Dave Jones (*Lemmings*' main programmer) eventually decided to stick with the split-screen set-up.

While Kay tried various ways to get the multiplayer game running on the PC, he eventually had to admit defeat, although, as he explains, coding the PC version wasn't as straightforward as the other systems. "It was purely down to driver issues," reveals Kay. "Nothing that we found could handle two mice on one machine, even though most machines had two serial ports. Also, the PC version was much bigger than all the other versions as it had to handle VGA, EGA, CGA and Tandy versions of the machine and it had to work on machines that were about the speed of the Amiga and ST. Needless to say, it took a long time to get it optimised to hit all the targets."

THE GREAT ESCAPE

The hard work paid off and *Lemmings* became an instant hit, and DMA soon found itself porting its hit to many other machines including the Lynx, Spectrum and CDi.

An arcade version by Data East was also in the works, but it never saw the light of day. While none of the original team worked on the title, many have their reasons as to why Data East didn't go ahead with the project. "I wasn't involved, but I heard





▲ Sometimes you had to be cruel to be kind – the only way out of here was to blow up your Blockers. Poor little buggers.

that the focus testing did not go well and that it was too sedentary for a coin-op,” reveals Kay. “I loved it, though, and the ROMs were rescued from destruction and are now immortalised in MAME.” Kay isn’t the only one who was sad to see that *Lemmings* never made it to arcades. “I really liked it and thought the trackball control worked fine as a control method,” says Timmons. “I think it could have been really popular and I would have loved to see it in the local arcades.”

DMA had little time to worry about the fate of the arcade game, as it was eager to start on its ambitious sequel. Unsurprisingly, a game with the scope of *Lemmings 2* faced a lot more problems, although it did allow DMA to bring the idea of tribes back after having to drop them from the original game. “*Lemmings 2* had some very cool technical advances over the original game,” explains Dailly. “Dave wanted to expand this into consoles (which is where the money was heading), and to do this he developed some new technology that used consoles better, rather than just brute force the way the original version did. There were still some big problems to solve on a console, but now at least they were solvable. In the past, conversions of *Lemmings* to a console were very tricky, slow and usually crippled the game.

“Now, not only could a console match the home computer version, it could enhance it – the SNES version of *Lemmings 2* had parallax backgrounds and even snow. The Amiga version also benefited from the smooth scrolling that was developed for the SNES. Even the PC



version had true, smooth scrolling, and that was a monster task that Russell only just managed to pull off. It was so effective that we started to see how poor PC monitors were at the time, since we started to see how badly the displays were warped.”

RUNNING WILD

Technical advancements weren’t the only benefits of the sequels, as DMA could now bring a whole host of new Lemmings to the series and was also able to include a storyline. “We had brought out more levels using the same skills in *Oh No! More Lemmings* [a *Lemmings* expansion pack] and wanted to expand on the skills that could be given to the Lemmings, so we worked on that for the sequel,” explains Timmons. “We came up with a whole bunch of new skills including the Pole Vaulter (which I thought was one of the more bizarre ideas, but it worked). The tribes theme also added a story and a reason for the Lemmings to get from A to B, and it allowed us to dress the Lemmings in new ways. In *Lemmings* if the player got stuck on a level that was it. In the sequel a player would have to get stuck on 12 levels before they were completely stuck. Other developments were the introduction of taller levels which could be scrolled up and down as well as from side to side and a fan to blow the flying Lemmings about.”

All the gameplay enhancements didn’t appear overnight, though, and DMA was having problems managing its team (it had grown considerably since the original game) and deciding on which directions the sequels would take. Although there was never a problem financially, Kay in particular didn’t find the sequel as much fun and left DMA before work started on *Lemmings 3*. “There was a lot more pressure on us and we were

less sure about the design, I don’t think *Lemmings 2* flowed as naturally,” he reveals. “Let’s just say I didn’t enjoy working on *Lemmings 2* as much as I did on *Lemmings 1*.”

Kay may not have enjoyed working on the sequel, but it’s clear to see that the original game was a labour of love for everyone who worked on it. And the reasons for its success are obvious. “It’s all about the simplest of things,” Dailly says. “Simplicity, killing huge numbers of the cute little guys, and the freedom of being able to complete levels in lots of different ways. In a strange way, this was the actual forerunner to *GTA*, as it’s what got Dave hooked on ‘open’ games.” Considering Dave Jones and the DMA team would go on to develop *Grand Theft Auto* and its sequels (DMA was bought by Rockstar in 1999, shortly after Jones’ departure, becoming Rockstar North), this emphasis on freedom isn’t so surprising. But then the success of the *GTA* series shouldn’t be so odd considering this was the team that took a bunch of witless rodents to the top of the charts on every format.

■ Thanks to Mike Dailly for extra information on www.dmadesign.org

◀ Remember kids – in the event of falling off an Ionic column, it’s unlikely that an umbrella will save you. Safety first.

