

From Cards to Carts : Inside Nintendo's game heads

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Classic Game & Watches courtesy of Jason Moore at Retrogames (0181 203 8868)



From their humble beginnings producing 'hanafuda' playing cards, to success with the Game & Watch, to engineering a world-beating 64-bit powerhouse, Nintendo have been delivering video gaming nirvana for over 15 years. And in the face of continued competition from Sega and a relatively fresh – but nonetheless fearsome – assault from Sony, they've kept the number-one slot. How do they do it? Who are the people there that make it happen? And just what is it that Nintendo does that, however hard they try, their competitors can't? The answers lie on the pages that follow...

FROM CARDS TO CARTS

Inside Nintendo's game heads

People don't say 'vacuum cleaner' these days – they say 'hoover'. And, increasingly, people don't say 'video game' either – they say 'Nintendo'. (And 'biro'. See?) The gravity of Nintendo's influence over the world was summed up recently when Liverpool FC's goalie David James confessed that his poor match performances could be put down to "eight hours of Nintendo last night". Millions like him have experienced 'the Nintendo effect'...

But this situation would surely have seemed inconceivable during the company's formative years. Unlike contemporaries such as Sega, you see, Nintendo hasn't always been involved in the phenomenon that video gaming represents.

In fact, video games are far removed from the product which set Nintendo off on its path to fortune and glory. Formed by Fusajiro Yamauchi in 1889, Nintendo started out selling hand-made playing cards and, for nearly 100 years, the

company's high-quality card products remained its core business.

Nintendo's progress since those far-off days has been astonishing, and to understand how the company got where it is today, we must consider its remarkable history.

Having seen his company conquer the playing-cards market, Nintendo Company Ltd's (NCL's) president, Hiroshi Yamauchi (who took control when his grandfather, Fusajiro, suffered a stroke in 1949), decided it was time to diversify in order to



Nintendo's five greatest successes

1 The Nintendo 64

Though its development was enveloped with doubt, the N64 introduced a revolutionary 3D experience when it finally appeared last year.

2 The NES

At a time when everyone thought the console scene was irrecoverable, Nintendo's 8-bit machine singlehandedly revived it.

3 The Super NES

This 16-bit format – 'the' console to own during the early '90s – plays host to more classic games than any other system to date.

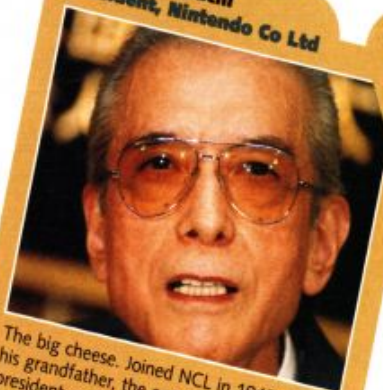
4 The Game Boy

A typical Nintendo product: innovative and affordable. Brought video games into the wide-scale public eye with a topper version of Tetris.

5 Mario

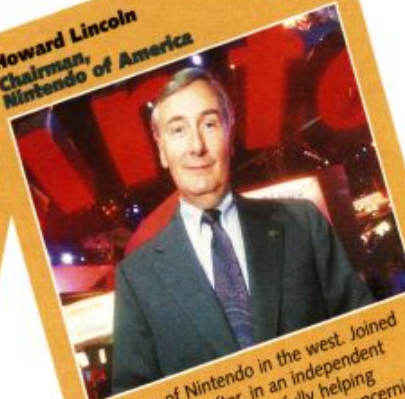
Like Pac-Man or a Space Invader, Mario has become a videogaming icon. And, remarkably, he still looks as fresh today as he did in 1981.

Hiroshi Yamauchi
President, Nintendo Co Ltd



The big cheese. Joined NCL in 1949 when his grandfather, the company's former president, suffered ill-health. Legendary business acumen. Known to get a bit angry. Not to be trifled with, generally speaking.

Howard Lincoln
Chairman,
Nintendo of America



The face of Nintendo in the west. Joined NOA in 1982 after, in an independent lawyer capacity, successfully helping Nintendo to win a court battle concerning Donkey Kong. Highly skilled negotiator.

Inside Nintendo's



expand. However, three brave new projects – a brand of instant rice, a (ahem) 'love hotel' and a taxi business – failed to take the company in the fresh (and profitable) direction he so hankered after.

So, realising that one of

Nintendo's strengths was its powerful distribution network – which was pushing Nintendo playing cards into as many outlets across Japan as was conceivably possible – Yamauchi decided to concentrate on devising more strictly entertainment-based concepts which could be sold down these avenues. Enter Gumppei Yokoi, in 1969, as head of Nintendo's newly formed 'Games' division. Having been pulled from maintaining the playing-card assembly lines at NCL, though, Yokoi wasn't sure what was being asked of him. "What should I make?" he understandably queried at the time. "Something great," came Yamauchi's reply.

This he did, creating a range of products, including the Ultra Hand (a novelty extendable pincer-like contraption), The Ultra Machine (an indoor baseball-pitching unit) and the Love Tester (which young couples

supposedly used to measure the 'love' that existed between them), all of which performed well for Nintendo, giving it the impetus to break free from the constraints of the playing-card market and move into more exciting areas.

Along with Yokoi, two individuals, Masayuki Uemura and Genyo Takedo, were the driving forces behind Nintendo's full-scale entry into the world of electronic entertainment hardware. Uemura, an ex-Sharp engineer, and Takedo, who responded to a Nintendo job advertisement asking for a toy designer, worked under Yokoi's supervision in creating the Nintendo Beam Gun, hardware which was put to successful use in both home and arcade set-ups in the late '70s. The company was well on its way to becoming one of Japan's leading entertainment companies.

SOPHISTICATED

In the late '70s, Nintendo teamed up with electronics giant Mitsubishi to create its first home consoles: the Color TV Game 6 (which played six different versions of Pong), the Color TV Game 15 (offering – yes – 15 different versions of Pong) and a number of slightly more sophisticated systems offering crude driving and Breakout-style gaming challenges.

The pocket calculator market came to fruition in the early '80s, and Yokoi's team made use of the possibilities afforded by such cheap, flexible technology in launching in 1981 the Game & Watch series, which, with a range of nearly 50 titles

(notable ones including multi-screen games like Donkey Kong and its sequel), went on to sell millions of units across the globe.

But, with the likes of Taito's Space Invaders having kicked off the arcade boom in such memorable fashion in 1978, it was the coin-op scene that had really attracted Yamauchi's interest by this point, and he set his engineers to work on titles that would give Nintendo a slice of the action. The coin-ops they came up with – including now-obscure titles such as Sky Skipper, Raderscope and Sheriff – went on to perform profitably, if not spectacularly well.

It was a team led by Uemura that created the product which made Nintendo. The success of their 8-bit Famicom (aka Nintendo Entertainment System – or NES – in the West) console is now the stuff of legend: 500,000 units sold in the first two months. It hit retail in Japan in '83, and went on to sell "as fast as it could be made". Software support from the world's foremost developers at the time, including Namco, Konami and Capcom, ensured that the machine made a similar mark in Europe and, especially, the US. (By 1990, an NES could be found in one third of all American homes.) In the early '90s, Nintendo took in as much cash as every American movie studio combined, and profited more than any of them (and more than the three US television networks combined). Such an unprecedented performance shocked everyone – including Nintendo themselves.

But, when attempting to pinpoint the genesis of Nintendo's all-conquering success, many cite the arrival of fresh new blood at Nintendo rather than a box of plastic and silicon chips. This blood occupied the veins of Shigeru Miyamoto, an artist who joined Nintendo in 1977 and was working in Nintendo's planning department when he was approached by Yamauchi in 1980. The Nintendo president wanted a new video game. Miyamoto had enjoyed video games since he was in college, and was super-keen to take up the challenge. A new era dawned.

What frustrated Miyamoto about the games of the time was their basic nature – he dismissed shoot-'em-ups and Pong-style games as being limited, wondering why video games were not treated more like books or movies. It was with such story-telling ideals that he went on to create Donkey Kong in 1981. The fact that the game eschewed the coin-op themes popular at the time frankly appalled some Nintendo staff, yet the game that introduced Mario to the world swiftly proved to be a whopping success.

UNBLINKERED

When over 60,000 Donkey Kong coin-ops sold when it launched in the US, the company realised that it could become as big a name in the west as it had become in its home territory. And all because of Miyamoto's fresh, unblinkered approach.

Following a spell working on coin-ops (most famously the original

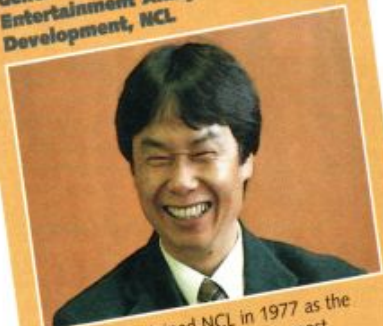


Gumpei Yokoi

FILE DELETED



Mr Game Boy. Joined NCL in 1969 and went on to create Boys Game and Virtual Left Nintendo last year; now operates his own company, developing new-fangled devices. Fallen genius.

Shigeru Miyamoto
General manager,
Entertainment Analysis &
Development, NCL

Mario's dad. Joined NCL in 1977 as the company's first artist. Now the most respected game designer in the world, following a rude amount of successful titles. The da Vinci of videogames.

Nintendo's five biggest failures

1 The Virtual Boy

Nintendo had high hopes for the Veebee, but a shortage of decent games and headache-inducing red-and-black visuals killed it.

2 R.O.B.

The 'Robotic Operating Buddy' was a peripheral for the NES which was about as much fun as playing with a rabid Doberman Pincher.

3 The Power Glove

The high point of The Power Glove's life was an appearance in the Fred 'The Wonder Years' Savage movie, The Wiz. Enough said.

4 The Disk System

Nintendo released this NES floppy-disk add-on only in Japan, where a lack of consumer interest ensured its swift demise.

5 The Zapper

In the mid-'80s, both Nintendo and Sega believed that light-gun accessories like this would be the next big thing. WRONG.

game heads

Mario Bros. in 1983) and several Game & Watch titles, Miyamoto moved on to designing Famicom software in 1984. His first creation, *Super Mario Bros.*, was the game that sold the NES in the west, and set him on a glittering career path that includes work on such classics as *Super Mario World*, *Stunt Race FX*, *Star Fox*, *Yoshi's Island* and, of course, *Super Mario 64*.

Nintendo needed the Miyamoto touch more than ever when the launch of Sega's Mega Drive in 1989 signalled a threat to the market that Nintendo had made its own. The hunger for new technology that is among a video gamer's inherent traits ensured that the Mega Drive was a huge success in the West, and left Nintendo playing catch-up. This they eventually did, thanks to superior hardware in the form of the SNES and, more importantly, some landmark games from Miyamoto and his talented software technician colleagues at NCL.

Nintendo were last to the party again with the next wave of hardware

in the form of the N64. Sega and Sony had stolen an 18-month march on Nintendo with their 32-bit machines, and Sony has repeated Sega's feat in wresting control away from Yamauchi's company for the time being. Sony has achieved this partly by scooping up a wave of customers – the twentysomethings – that would traditionally fall outside Nintendo's 'catchment area'.

Nintendo's dependence on 'younger viewers' has been viewed by some as a failing, but their increasing awareness of the more mature gaming sector – proved by the release of games such as *Turok* and *Doom* – show that they're willing to take Sony on on their terms (if not so comprehensively equipped to do it right now).

Nintendo's success can't be attributed to one specific factor. Instead, the company has made it big – and remained big – thanks to a combination of elements. The guiding principles of Yamauchi are one particularly important influence: this is a man whose decisions – often made

seemingly on instinct alone – have pushed Nintendo in the right directions at the right times. Then there are the hardware gurus who have put together the NES, the Game Boy, the SNES and, with the cooperation of SGI, the Nintendo 64 – no other console manufacturer has such a consistent track record. The third most important part is the company's in-house software production facility. Led by the examples born of Miyamoto, NCL's coders, graphic artists and sound engineers are without doubt the world's most talented.

PUNCH

The company's success is self-perpetuating to some degree, too: when the world's leading computer-image-generation company, Silicon Graphics, managed to scale down its graphics-processing punch to a point where it was economical for use in home video game systems, whose reputation was it courted by when choosing a partner? Exactly.

The resultant technology, the

reason why you're holding this magazine today, is but another step in the exciting development of a company whose continued performance appears unquashable. With Sega already failing fast and Sony's machine playing host to an ever-broadening selection of dire games, it looks like Nintendo are going to have an easy ride in the coming years.



Nintendo through the years

1889

● Nintendo Koppai is founded by Fusajiro Yamauchi to manufacture the cards used in an almost-certainly confusing game called hanafuda. 'Nintendo' means 'Work hard, but in the end it is in heaven's hands'.

1970

● Finding the playing cards business uncomfortably limiting, Nintendo branches out into toys and launches the Ultra Hand, a telescopic grabbing

arm. 1.2 million are sold.

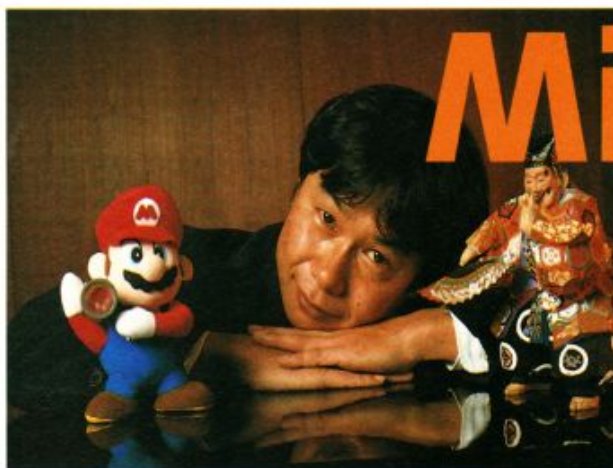
1972

● Atari's *Pong*, the first video game, appears in American bars and clubs.

1977

● Under its new president, Hiroshi Yamauchi, Fusajiro's grandson, Nintendo launches the Color TV Game 6, a machine which connects to the television and plays *Pong*-style games.





Miyamoto

will allow this type of sound composition to match today's prerecorded music.

Miyamoto on... Super Mario 64

I think the point we were basically focusing on with Super Mario 64 – and this may or may not be a lesson to others – is that in the past, 3D games have been developed selfishly by their creators. We approached Super Mario 64 from the other direction, and tried to cater to the selfishness of the end users and their desire for control, a good game camera, and ease of play. This wasn't a lesson for us, because we've known that this was the best way to do it since we first started experimenting with 3D using the FX chip for the Super NES. So the Super Mario 64 project was more of a reminder to us, and it reconfirmed that, as with all games, you have to cater to the user's desires.

Also, we learned a lot while making Super Mario 64 about the potential of the Nintendo 64 hardware itself. And while making the game, I discovered many points about the game's 3D engine that could be modified or improved. We didn't have time to implement these changes during Super Mario 64, but now, as we work on the next games – Zelda, for example – we can complete a tune-up of the Super Mario 64 system, and games like F-Zero can be completely new.

Miyamoto on... The N64's Joypad

I think it's easy to get accustomed to the analogue pad, and most people manage to master it after about two hours' playing time. But, of course,

it's another question altogether as to whether or not gamers will accept it in the long term. When we first introduced the 8-bit Famicom into Japan in the 1980s, everyone was accustomed to using a joystick, and many people complained about the new joypad. They got used to it, though.

Miyamoto on... His Role at Nintendo

There are mainly three parts to my job right now. First, there's my normal job which is as a game producer working closely with the game directors of four or five different games. But this is always the case with me – I always seem to be working on four or five games at any one time. Second, I work with producers working for other companies – so I'm supervising the development of around ten games at third-parties. Third, I'm involved with disc-based games – a little less than ten right now. These projects include the system construction for Mario Paint, editing Sim City – and other similar titles – and, as I said earlier, I'm working on the basic structure of self-growing games. This new project will be due for release sometime in 1998, and it'll be unique, original and different. But because of that uniqueness, most people who see it are criticising it, saying, "This is not a game!" So I'm kind of in trouble right now, whether what I'm doing is right or not.

Miyamoto on... Yoshi's Island 64

When we started software development for Nintendo 64, we

Think 'Father of Video Games' and Nolan Bushnell, the creator of Atari's Pong, comes to mind. Think 'Father of the Modern Video Game', however, and there's another quite different name to consider: Shigeru Miyamoto.

This man's overwhelmingly enduring talent has made its mark on games dating back to 1981, in the form of Donkey Kong, to modern-day productions, including that which many have hailed as the greatest of all time: Super Mario 64.

Although he takes a more back-seat role today than he did when sketching out the initial designs for Mario's sprite in 1981, Miyamoto retains an understanding of the art of video game design that sets him apart from the thousands of contemporaries who so often attempt to emulate his glorious creations.

A modest, demure man, he has a light-hearted demeanour which belies his stature as the most influential person working in videogames. Now in his early forties, he prefers to travel to NCL's Kyoto HQ by mountain bike rather than motor car. Outside video game design and production, he cites swimming and playing the acoustic guitar among his hobbies. His favourite movie is Raiders of the Lost Ark, and its producer, George Lucas, is his idol. And, if ever there was a comparison itching to be drawn, it has to be between these two individuals' contributions to their respective trades...

Miyamoto on... Cartridges

I think we've completed enough software to prove that cartridges are a viable and important medium. But unfortunately most Japanese users don't see it that way – they see CD-ROMs as a current trend and they feel that cartridges are in some way obsolete. But when it comes to software content, we've proved there's still life left in cartridges – we just haven't managed to persuade a lot of the Japanese consumers yet!

Miyamoto on... N64 Game Music

Many people want to have high-quality music, say with a full orchestra sound or something. But what I'm saying to our sound staff is they shouldn't be too concerned about the quantity of the music data. Rather than concentrating on increasing the quantity of music in a game, we should try to make the most of its quality. Without CD, musicians may be disappointed with the quantity and range of data that they can use, but over time I think they'll learn to appreciate that less can be more. They should brush up their skills in producing interactive music, and eventually technology

appears. It features a carpenter called Mario.

• The first of Nintendo's Game & Watches are launched. They're games. They're watches. They're games and watches. Etc.

1983

• The Famicom, known outside Japan as the Nintendo Entertainment System, is launched. More powerful than any competing machine, and, at \$100,

cheaper too, it quickly captures the market, selling by the million and pushing out all rival systems.

1984

• The first of Miyamoto's NES Mario games, Super Mario Bros., appears. It stars Mario – now a plumber – and his slimmer brother, Luigi. The series later goes on to sell over 60 million copies.

1985

• The Famicom is launched in the US, renamed

• Shigeru Miyamoto joins Nintendo.

1979

• Nintendo tries its hand at competing with American coin-op machines, with Hellfire, Sherif, Sky Skipper and Raderscope. It has some, though not much, success.

1981

• The Donkey Kong coin-op, designed by Miyamoto,



on...

wanted to make a kind of 'two-and-a-half dimensional' game, because this would be easier for the consumers to start playing with. Eventually we decided that this game would be Yoshi's Island 64.

The original Yoshi's Island for the Super NES used the FX chip, because we wanted to do all sorts of things with the game, but, still, there were many things we just couldn't do because of the limitations of the old hardware. So we really want to introduce these features – and realise our original concept – in a finished version of Yoshi's Island for Nintendo 64.

3D graphics are fine, but for Yoshi's Island we want to have more artistic graphics, so that the game is more like a moving picture, or something like that. And this means doing it in 2D. Polygons offer a kind of 'solid' graphics, and if you like it that's all right, but texture-mapped graphics are always limited to set ways, and they will always look similar.

However, when it comes to 2D graphics, there's a variety of ways in which you can paint the original pictures that are used in the game. You could use an airbrush, you could use a pencil, you could use chalk, or many other ways; you can paint the pictures in any way you like.

As you can see in Yoshi's Island 64, we've used what we call 'cardboard art' – and it's only with a 2D game that we can have this kind of rich expression in the graphics.

Miyamoto on... 3D Games

When Space Invaders was written, nobody at that time was able to imagine what the actual technology was capable of, or where it would go – they would have been very surprised. Games became more and more complex, and the consequence

was that lots of games appeared that were very different. And 3D gives games even more complexity, so essentially it's just about making games wider in scope. From a 2D game as a basis it's possible to make a 3D game by adding some new points made possible by 3D. Personally, I'm very interested in making some new 3D titles based on old 2D ones. The additional complexity offered by 3D gives more possibilities to creators and that in turn is good for players.

Miyamoto on... How He Does It

I think about what a player would like to play. I try to make a game from the player's point of view and imagine what kind of character they would like to be. Then I move onto building up the game, adding a scenario, deciding on a setting, the characters and the events that will take place. So, I try to meet the customer's wishes first. I haven't had much experience in developing RPGs, but it's very important for that type of game in particular.

Miyamoto on... What Makes a Good Game

To make a game you must put in a lot of effort. I'll put my neck out and say that PlayStation games sound good, but when you watch them in action they're not finished at all in my opinion. A game is finished when a creator decides it is. There are lots of games developed for Nintendo that have to be refused release because they're not finished. When you're making a game, the creator mustn't allow it to be released because he is satisfied – he must always think about the player's

feelings and wishes. Self-satisfaction isn't conducive to creativity. I think European painters – like the impressionist Cézanne, for example – were always thinking about how to surprise the customer – to impress them in a gallery. It's very important.

Miyamoto on... His Favourite Games

I don't actually play many games. I like to play around with them, but I don't really spend much time doing it. If you want to play role-playing games you have to play for at least five hours to enjoy them, and I don't go for that kind of obligation. I like things like Tetris, for example, which are enjoyable in a shorter period of time. Outside of my own productions, my favourite videogame is maybe Pac Man.

Miyamoto on... Nintendo's Competition

Unfortunately, our competitors seem simply to try to imitate the surface and just end up making very badly balanced games. They never understand why and how we've done what we've done to achieve each game's content.

I think Sega is trying to imitate Nintendo's way of business, but it makes some modifications. Perhaps Sega's particular strengths are its arcade business and its capacity to produce new hardware. Nintendo's strategy is different from Sega's – Nintendo gets involved in research and development and markets the



results of its research. Sega proceeds in another way – it imitates Nintendo and tries to produce research and development on products that Nintendo is going to sell. It researches only the products that it knows it wants to sell. The results are the same for both companies but Sega is always thinking in terms of the market.

Miyamoto on... Foreign Developers

I like the British way of working very much. I've worked a few times with British developers and everything was perfect. I'm a little worried about the American way of working, because in America I worked from more of a business position, whereas in Britain I worked with development teams. I say that I like the British approach because they work the same way as me. I don't know exactly about America...

But like the Japanese, American producers – movie producers, for example – need to be involved very deeply in their work; they put in a lot of effort and sometimes there's nothing left for a private life. I'm sure Americans work efficiently, but sometimes when I work with them they're careless. I prefer working with the British because their way is more Japanese.



the Nintendo Entertainment System.

1986

• The NES Disk System is launched in Japan. It meets with moderate success, but isn't sold overseas.



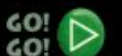
1988

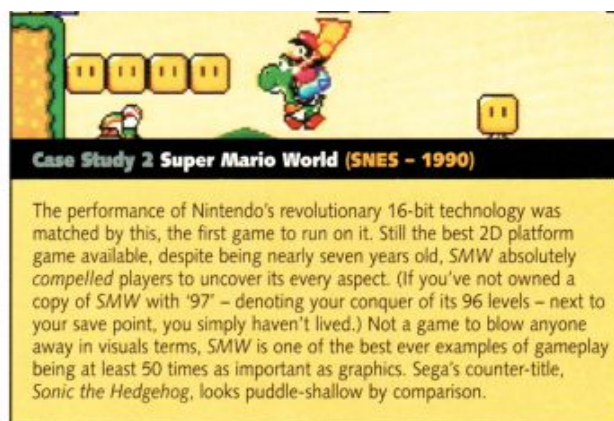
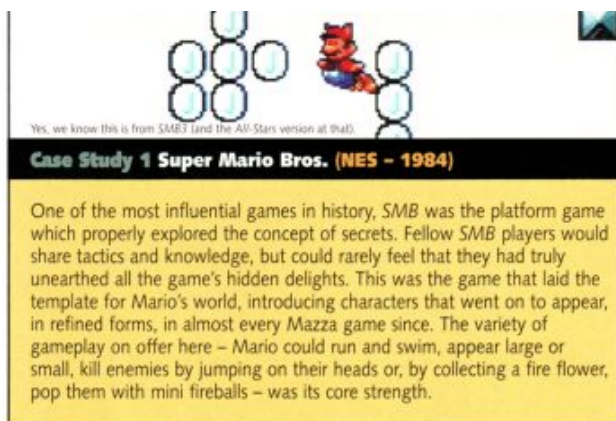
• Super Mario Bros 2 is released for the blossoming NES.

1989

• Super Mario Bros 3 is released for the NES. This is, by a long way, the hugest and best Mario game yet, and with it Nintendo really hits the big time in America.

• The Game Boy is launched. It swiftly sells millions around the world, propelled to success by





Just what makes Ninte

So Nintendo have produced most of the world's successful games consoles. But they also happen to have created the most popular games to run on them, most notably the *Mario* and *Zelda* series, which have swollen Nintendo's coffers to the tune of millions of pounds.

To give all the credit for Nintendo's software success to Mario's pop Shigeru Miyamoto is to miss the point, though: while Mario's father was undoubtedly responsible for kickstarting the company's boom period with *Donkey Kong*, he has been working with teams consisting of planners, artists, animators, programmers and sound technicians who rank among the most talented in their field.

To appreciate their game design success, a number of fundamental aspects must be considered:

CHARACTER

Character may not seem like an important issue until you consider that more American kids recognise Mario than they do Mickey Mouse, such is the reputation Nintendo's ubiquitous hero has garnered since his moustachioed fizzog first popped up in *Donkey Kong* 16 years ago (and appearing in no less than 46 games since, Mazza-spotting fans).

Consider the demise of Sonic – once such a hip young punkster, now a mere afterthought among Sega's development plans – and the

countless achingly feeble attempts still being made by developers to come up with game characters with character. (*Crash Bandicoot*? Exactly.)

More than simply refining the Mario character over the years, though, Nintendo have created an entire universe around him, and Yoshi, Bowser, Princess Peach, Koopa Trooper, Big Boo and Toad (to name but a mere handful) have found their way into the consciousness of game players the world over.

With Mario, apart from relating to the people who actually play games, Nintendo have created an identity which has also shaped the awareness of adults who buy presents for their game-playing offspring. Consider: it's Christmas; little Johnny wants a new game for his Nintendo system – which is the most appealing title to the average parent, the latest Mario game, or *Rock Overactivehormones Kicks Alien Butt*?

Mario is an institution, a marketing department's dream. Which is not bad for a character whose appearance happened more by accident than design – his trademark cap, for example, coming about because, to use Miyamoto's words, "I can't come up with hairstyles so good."

PLAYABILITY

Nintendo have made their name by obeying – and refining – the myriad laws of gameplay which have been hammered out over the 20 or so years of video games' existence.

The company's first major contribution was actually hardware: the cross-style D-pad, which it introduced with the first Game & Watch unit. At a time when cumbersome joysticks were the accepted method of video game control, Nintendo proposed fingertip control (and subsequently went on to create a medically recognised condition, Nintendo Thumb, to the consternation of parents the world over), and every other game console manufacturer followed their lead.

In software terms, making a game playable is obviously all about being aware of the player's needs and expectations, and pandering to them. More than that it's something else, though, a grey area. Playability is a factor X, a secret ingredient, often happened upon by chance, but more commonly by deliberate endeavours where Nintendo is concerned.

One of the most important

factors game designers face in delivering something that's playable is: never make the player feel that anyone but he is to blame for his performance on-screen. It's no good dropping a shed-load of spikes out of the ceiling upon the player's head just for the sake of the unexpected. Similarly, it's not acceptable to ask a player to perform an action where the outcome is shrouded in doubt (see, most famously, 'leaps of faith' in platform games, where the player is required to jump into an area that, because it can't be seen, could consist either of a crash mat of candy floss or a bed of nails). By being fair to the player, Nintendo ensure that he will always come back for more...

The relationship between what's happening on the screen and what's happening in the real world (i.e. what the player is doing with the joystick) is perhaps the most important aspect of playability, though. When you tell Mario to go right, his response is sharp, immediate; when you tell him to turn around and go back the other way, subtle inertia makes it a gradual (if swift) process – he doesn't merely perform an immediate about-turn.

These nuances are pretty much ignored by the player, and



another Mario game (*Super Mario Land*) and, more importantly, what's still the best *Tetris* available.

1990

- There's an NES in a third of American homes. A survey shows that Mario is recognisable to more American school children than Mickey Mouse.
- The 16-bit Super Famicom arrives. It struggles to overcome Sega's already-well-established Mega

1993

- Nintendo announce 'Project Reality', an alliance with famous graphics workstation manufacturer Silicon Graphics that's going to produce a new super-console.

Drive, but eventually succeeds – especially in Japan – thanks to a combination of superior hardware and the excellence of games like *Super Mario World*, *F-Zero* and *Super Mario Kart*.

1994

- Virtual Boy, a weird, 32-bit, 3D 'virtual reality' type console, is launched by Nintendo. Despite actually being quite clever, and having a few good games, it dies through a lack of software support and just being too plain weird.

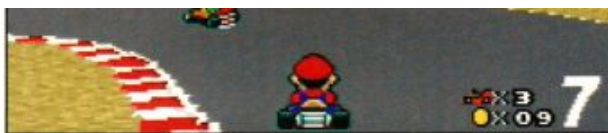
1996

- After many frustrating delays, the Nintendo 64 (as Project Reality has become) finally goes on sale in Japan and, a bit later, around the world.



Case Study 3 *Zelda III A Link To The Past* (SNES - 1993)

From the moment *Zelda III* begins, with the player waking from a dream, leaving his humble dwelling and walking out into rain-strewn village, it's obvious this is a very special thing indeed. It's not until much later, though, that its true delights become apparent: the freedom given to Link; the nature of the challenges which face him throughout a truly vast quest; the joyous playability within which it is all wrapped. These elements combine to make it one of history's most memorable games, and perhaps the greatest 16-bit game devised (against some pretty stiff competition).



Case Study 4 *Super Mario Kart* (SNES - 1993)

As if to slap their competition around the faces with a wet haddock, Nintendo showed their designers could turn their hands to just about anything and be tremendously successful – in this case a cute driving game. The key here was the breaking of ground: nothing like *Mario Kart* had ever been seen before and, indeed, many were initially dismissive of the title because of this. Given a chance, though, the game proved to be as compelling and rewarding as just about any platform game Nintendo have come up with. Its quality is perhaps best illustrated by the fact that it's as enjoyable as its 64-bit-powered successor.

Why are Nintendo games so special?

that's exactly why they work so well, because they form what appears to be such a natural, integral part of the game-playing process. This type of character control was first laid out in *Mario Bros.* back in 1983, and it hasn't changed much in Mario games since, because it feels so damn right.

SURPRISE

Shigeru Miyamoto once said, "What if, on a crowded street, you look up and see something appear that, given what we know, shouldn't be there? You either shake your head and dismiss it or you accept that there's much more to the world than we think. Perhaps it really is a doorway to another place."

This sense of unknown possibilities is one essential factor in the success of so many Nintendo games over the years. In game terms it's all about presenting the unexpected, whether that's an invisible bonus block that the player bumps into during a game of *Super Mario Bros.* or a boss monster in *Super Metroid* which reanimates after the player has (rightly) believed it to be vanquished.

Think about the first time you saw the small alien ship zip onto the screen in *Asteroids*. Or the first time your ship was captured in *Galaga*. Or, even, when you realised that *Zelda III*'s world was twice as large as you first supposed it was, because of all that Light/Dark-type stuff. All classic video game surprises.

VARIETY

There can be few games worse than those which present level after level of repetitive, predictable action. How can game designers expect people to want to play on when they're merely presenting the same kind of gameplay that has been experienced over the last few levels, refined only in the form of new backgrounds? This is perhaps the most valuable lesson that Nintendo's designers can teach their peers: give the gamer room to grow.

SNES titles *Zelda III* and *Super Metroid* are fantastic examples of how player interest can be retained throughout long-term challenges: as your character explores new areas and finds new items, these items are not merely bags of gold or bunches of fruit or some such other score-related paraphernalia; they are of use.

So the characters in *Zelda* and *Metroid* continually gain new skills as they progress, whether it's Link's boomerang or Samus's super-jump capability. (You could even look at *Super Mario World*, in which Mazza collects a cape.) Crucially, each game's environment is packed with locations which their players will reach and think, Now, I know I must be able to get through this section – if only I knew how.

This dangling of carrots is a trick Nintendo use to make nearly all their games so horrendously addictive. The rest of the world, however, seems to be taking an awfully long time to cotton on.

N64

Case Study 5 *Super Mario 64* (N64 - 1996)

The game that purportedly took over five years to develop (beginning its life as a Super FX-powered SNES title) is a landmark game for more than one reason. First, it managed to take Mario's firmly established world and convincingly translate it into three dimensions (not an easy feat when you consider the limitations presented by polygons). Second, and more importantly, it delivered true three-dimensional gameplay. Look at the game's 32-bit 'equivalents' (*Crash Bandicoot*, *Pandemonium*, etc), and the difference is clear. The most ambitious videogame ever realised.



NEXT MONTH

N64 Magazine continues its probings in issue 3, which'll contain a complete A-Z guide to Japanese developers – and which games they're all working on!