Designed to Entertain



John Wardley at the opening of the original Nemesis at Alton Towers

For more than four decades, John Wardley has played a significant role in shaping the development of the UK theme park industry.

As a designer, illusionist, engineer and creative consultant, his career has spanned a period in which British parks evolved from largely traditional amusement and leisure attractions into sophisticated themed destinations capable of delivering experiences on an international scale.

His work has been closely associated with some of the most important developments of that period. From the transformation of Chessington Zoo into Chessington World of Adventures during the 1980s, through to landmark attractions at Alton Towers including Nemesis and Oblivion, Wardley helped demonstrate how innovative ride technology could be combined with storytelling, landscape and theatrical design to create experiences specifically for the British market.

Along the way, he has worked with many of the operators, manufacturers, designers and specialists who helped establish the UK's modern themed entertainment industry, while influencing a subsequent generation of attraction designers.

During the summer InterPark's John Fosbrooke caught up with Wardley to look back at an extraordinary career, the people and projects that shaped it, and more than 40 years of change within the British theme park industry.

Interpark: You entered the attractions industry with a background in stage management and I understand that you worked on some very high-profile productions such as the James Bond 007 films.What was that part of your career like and how did that background shape the way you think about rides and design?

John Wardley: When I was working in film special effects in the 70s there was no such thing as digital CGI. If you needed an effect of, say, a castle being blown up, you built a castle and you blew it up... For real! There was trickery involved, but for the most part the effects were created on a huge dynamic scale. It was great fun. On the original Railway Children movie, we created a massive landslide down a railway embankment. I worked on a couple of James Bond 007 films at Pinewood, and the size of the sets and the enormity of the effects we were creating used to blow the minds of any VIPs or visitors who came into the studios. It seemed such a shame that these spectacles had to be filmed and dubbed and edited,

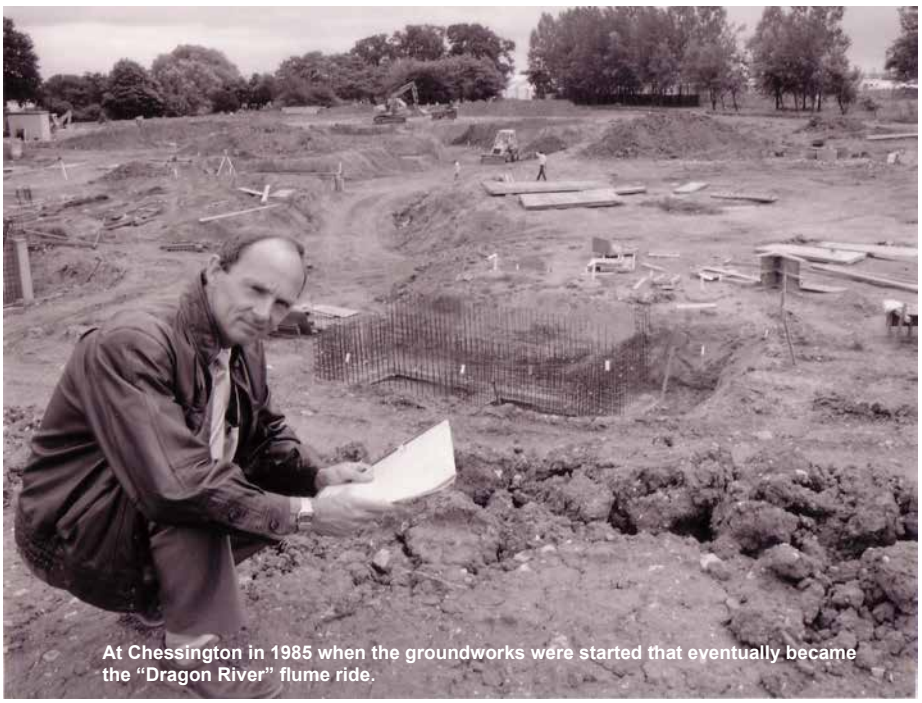
and eventually projected onto a flat screen in a cinema. If only there were a way to bring a live audience into the studios to witness these spectacles first hand. And that made me think... Surely that was what the American theme park concept was all about, taking film techniques of set construction and special effects, and inserting the visitors into these environments. So I jumped on a plane, went to Disneyland, and decided when the time was right I would use my knowledge and expertise to bring the theme park concept to Britain.

IP: Looking back, what skills do you think mattered most in allowing you to move into creative leadership within the attractions industry?

JW: The most vital skill that I nurtured right from the very start was a thorough understanding of the likes, dislikes, aspirations and psyche of the typical British visitor. With the support of my family I had served a very carefully structured apprenticeship as a young 16-year-old lad in a variety of different popular entertainment operations... And it gave me a real hands-on insight into what entertains people, and how this can make me money. I realised that it was not necessarily the things that appealed or entertained me that were important, but that it was vital for me to have an understanding and appreciation of the mindset of others. When people ask me what my career was, I tell them that I was an entertainer. Just because I didn't stand on a stage and tell jokes, or sing songs, or act a part in a play, that didn't mean that my function in life wasn't to entertain. My job was to manipulate the emotions of my audience in just the same way as any other entertainer. I regard this as my main talent, and the secret of my career success.

IP: Many of your most celebrated attractions rely on psychology rather than sheer scale. Such as allowing other guests eye-contact with the riders. Why do you think anticipation and misdirection are so powerful?

JW: The first thing to understand is that not all visitors want to ride everything they are presented with at a theme park. But even giant intimidating roller coasters can amaze, amuse, and thrill non-riders by providing ways in which they can view and interact with those who are riding. One needs to extract every ounce of entertainment value from the millions of dollars that have been invested in an attraction, and for every visitor that participates in a ride or attraction, there will be at least one or more that doesn't, and that is wasted capital. As I have said, understanding the psyche of the visitors and ensuring that an attraction has as broad appeal as possible makes economic sense. But a theme park is an illusion that uses trickery to make the visitor think that they are in a real environment or on an adventure, whereas in fact it is totally artificial. We have to take control of the minds of our visitors. That is where psychology comes in.



At Chessington in 1985 when the groundworks were started that eventually became the "Dragon River" flume ride.



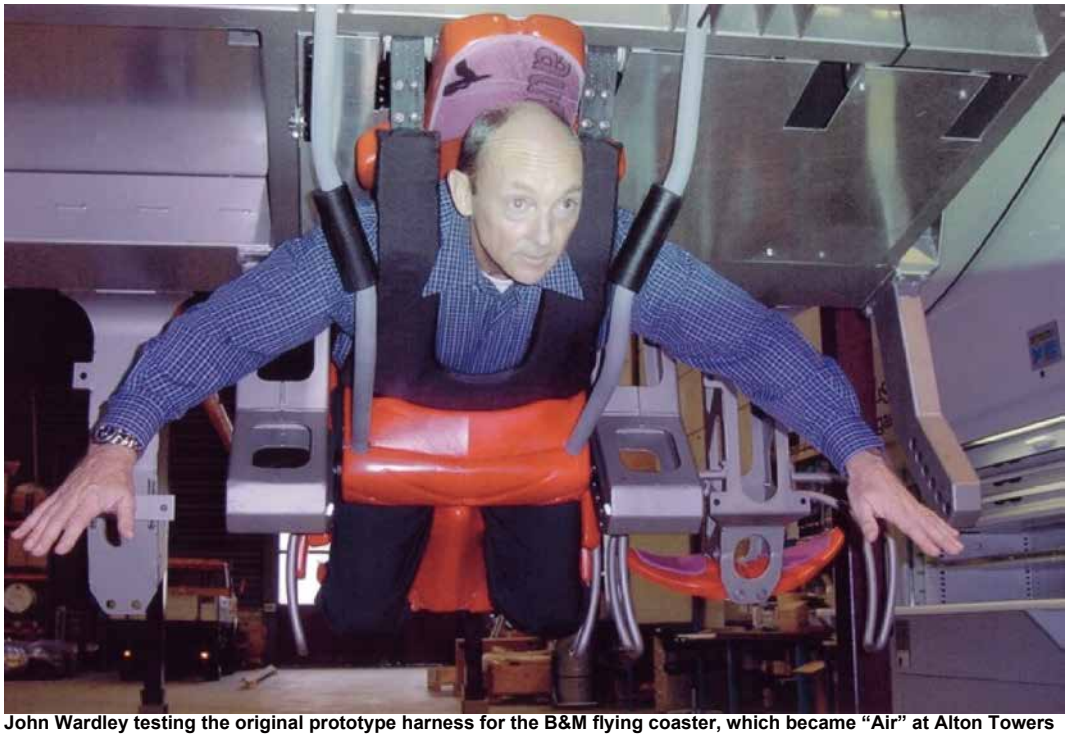
John Wardley with Claude Mabillard inspecting the trains of Dragon Khan at PortAventura before its opening

IP: You pioneered the whole concept of the theme park in the UK, what were your first projects which led the way?

JW: When I was charged with the task of revitalising the old Chessington Zoo in 1985 and turning it into a theme park we were faced with huge challenges. The local authority did not want any change at all, and imposed enormous planning constraints on us. Madame Tussauds parent company, Pearsons, who were going to be financing the project, were understandably wary and gave us only limited funds. We had to retain the animal exhibits, so the rides had to be designed so as not to impact their environment. We had to think outside the box, and create attractions that appeared to be of the same scale as the big American theme parks, but without their budgets or freedom of space and restrictions. Huge rollercoasters were out of the question, as were elaborate custom-designed transit systems. But I wanted the whole attraction to have a sense of permanence and uniqueness. Previous attractions in Britain that had aspired to become theme parks simply had installed demountable portable fairground rides in nicely landscaped settings and given them a themed signage package and name. Why should visitors travel miles from their homes to experience the same rides that came to their local village green, but in a pay-one-price environment? I wanted to do something far more true to what I considered a theme park should be - to take my visitors on a journey into exotic lands and adventures. So we took a standard-layout Mack “Blauer Enzian” powered coaster, threw a plaster mountain over it, and created our version of Big Thunder Mountain Railroad (for one thirtieth the cost!). A regular flume ride was heavily landscaped and themed on the Mystic East, Madame Tussauds Studios created a dark ride on a techno theme, a HUSS Pirate Ship was installed in a realistically-themed English fishing village. The following year we installed an Arrow suspended coaster themed on vampire bats, created a quaint mid-European town in which to locate it, together with a water-borne family dark ride. The transformation from the old zoo to Chessington World of Adventures was an overnight success. A new company was formed, Tussauds Group Park Developments, of which I was made a director, and the rest is history. Alton Towers followed, then Port Aventura, Heide Park, Gardaland, Thorpe Park and so on.

IP: You’ve worked closely with ride manufacturers such as B&M, Intamin and Vekoma throughout your career. What makes a truly productive designer - manufacturer relationship and how did you succeed where so many fall short?

JW: Too many park operators go to IAAPA, see a new coaster product from a manufacturer, go back to their marketeers who pose the question to them “how can we make this the highest, fastest and most media-appealing attraction on our park?”



John Wardley testing the original prototype harness for the B&M flying coaster, which became "Air" at Alton Towers

Unfortunately, this is the brief then given to the chosen manufacturer, together with a budget and a plan of the site. They're then told to get on with it. That is not the approach I ever take. Sure, IAAPA sparks ideas in my head. I ask myself "How can this product be turned into an exciting entertainment experience rather than just a steel torture machine?". Always, the visitor experience is at the forefront of my mind, not the steel monstrosity. As a consequence, many of the major manufacturers I dealt with respected me, and collaborated with me on new ideas and products.

IP: Are there examples where collaboration across disciplines led to a better outcome than any single team could have achieved alone? Such as Hex at Alton Towers.

JW: This unique attraction required the collaboration of historians, heritage architects, a ride manufacturer, the local planning authority, storytellers, film makers, musicians, special effects technicians and scenic artists. It all came together amazingly well, and is acknowledged to be one of the most unique ride attractions in the world.

IP: Many people know your most successful projects, but which are your personal favourites?

JW: Obviously I am best known for Nemesis at Alton Towers, but the attraction I am most proud of was Professor Burp's Bubbleworks at Chessington (sadly no longer with us!). It brought much fun, laughter and happiness to millions of people.

Designing The Next Generation Guest Experience

IP: You've always designed with human behaviour in mind. What changes in guest behaviour have you noticed most clearly over the decades?

JW: It doesn't take much insight to realise that over the years the guests are more critical and demanding of the offerings at theme parks. When we first opened our attraction at Alton Towers guests would go through the turnstiles and stand in awe and respectful anticipation of what they were about to experience. Everything was magical and amazing. Nowadays they are emotionally more robust, and demand ever more scary, thrilling and intense attractions. They are primed by the technology they experience in their everyday lives to expect the same level of sophistication in the attractions at the theme parks they visit.

IP: Today's audiences are more diverse in age, background and expectation than ever. How should designers and operators respond without trying to please everyone at once?

JW: There are attractions that aim to attract a specific market. Some parks, for example, consider the teenage market as their main source of revenue and consequently emphasise the intense horror and thrill attractions as their headliners. Similarly, there are parks that appeal to young families and use children's intellectual properties as their main draw. But it is possible to appeal to (almost!) everyone. Alton Towers does this very well, and even theme park-aversed visitors have the gardens and estate heritage to enjoy. As long as a designer understands the sector of the market for which he or she is trying to design, there should be no conflict.

IP: Do you think designers are sometimes too focused on technology as the solution, rather than understanding why guests behave the way they do?

JW: Don't blame the designers. Blame the people who are briefing them.

IP: There has been a resurgence of enthusiasm for woodies in recent years, what do you think is the appeal of the woodie for both the operator and the rider?

JW: The easiest way to explain this is to quote from my book "Life after Nemesis":
"As a little kid I had got a plank of wood, four old pram wheels, some nuts and bolts and a length of rope, and built what I called my "trolley". I would find a patch of waste ground with undulating terrain, and would race up and down the hills on my homemade trolley, dicing with death (as I thought!), and it was great fun. Another kid just down the road had been bought a fancy go-kart for Christmas, all shiny painted metal, precision wheels and bearings, and he would join me. Whenever we swapped, although his was very slick, mine was much more fun. And he always enjoyed riding mine more than his. And the same is true about wooden coasters versus steel ones. There is something much more "real" and "earthy" about riding a wooden coaster. You might get a much smoother ride on a Steelie, but a Woodie gives you much more of a sense of adventure and exploration. It is a journey as well as an experience."

IP: Queue lines are frequently treated as an afterthought. What should designers and operators be thinking about first when designing queues?

JW: Perhaps this question is almost becoming redundant with modern "virtual queue" technology coming to the fore. But the main villain of the piece is a lack of appreciation by designers to match the capacity of the ride with demand. Whereas in the early days of my career I put a huge amount of effort into ensuring the hourly throughput of the attraction (ride, pre-show, approach pathways etc.) was maximised (and in most cases never less than 1200



riders per hour, and sometimes approaching 1800), I have witnessed over the years that as budgets become tighter capacity emphasis drops down the priority list. For example, by a few extra dollars spent on kicker wheels in a woodie station to dispatch the trains faster can add enormously to the hourly capacity. I always put a box in my budget spreadsheets of capital cost divided by capacity, and I watched this box like a hawk. Every unit of capacityis worth money, even in a pay-one-price operation. And this must be acknowledged in the development costs. Nevertheless, a well-marketed attraction will always generate queues regardless of its capacity, and a well-designed queueline can ease the tedium of waiting, as well as preparing the rider for the adventure ahead.

The UK Market: Direction, Identity and Creativity

IP: Some of the most interesting UK projects are not the biggest. Why do smaller-scale developments often punch above their weight creatively?
JW: The smaller parks tend to be family-owned or not funded by venture capital. They have the freedom to think outside the box, to take creative risks, and be free of corporate culture. Long may they thrive.

IP: How have planning constraints, space limitations and regulation shaped innovation in the UK market?

JW: Although planning restrictions in Britain have been the bane of my life, they have forced me to be creative. We would never have dug a gigantic hole in the ground at Alton Towers and dropped a B&M inverter in it if the planners hadn't forced us to do it. The wretched hole cost as much as the ride transit system, and everyone thought we were crazy. But what a success Nemesis has been! We have the local planning authority to thank for that.

IP: What attractions and future projects in the UK are you most excited about, and which ones are you planning to visit?

JW: I think there's an elephant in the room here! Of course the new Universal park in Bedfordshire is going to stir up the industry. The small, family-owned parks who have a local market have nothing to worry about. It's the big boys that have to seriously up their game. They need to develop a strategy which differentiates them from the Universal offering, whilst retaining their stature and prominence. I predict that they will have one major advantage over Universal, and that is price. The current walk-up day price of one of Britain's major parks is approximately £45, whereas the current day price of one of Universal's Orlando parks is approximately £140. I can see no reason why this differential can't be projected into the future when the new park opens. The British public can afford this, but it won't be a once-a-year visit. And given that Merlin's current annual pass is £139 which gives unlimited access to all their 20 attractions, if Merlin play their cards right they could have a very strong marketing message to shout about.

Advice for the next generation of attraction professionals

IP: What advice would you give to young professionals, whether designers, engineers or manufacturers, who want to create meaningful attractions rather than just impressive ones?
JW: Go back to first principles. Accept that your role is that of an entertainer.
So, ENTERTAIN!

Photographs and captions kindly supplied by John Wardley
John's 2 books "Creating my own Nemesis" and "Life after Nemesis" are available from Amazon" IP