Historic England

Historic Amusement Parks and Fairground Rides

Introductions to Heritage Assets

Summary

Historic England's Introductions to Heritage Assets (IHAs) are accessible, authoritative, illustrated summaries of what we know about specific types of archaeological site, building, landscape or marine asset. Typically they deal with subjects which lack such a summary. This can either be where the literature is dauntingly voluminous, or alternatively where little has been written. Most often it is the latter, and many IHAs bring understanding of site or building types which are neglected or little understood. Many of these are what might be thought of as 'new heritage', that is they date from after the Second World War.

With origins that can be traced to annual fairs and 18th-century pleasure grounds, and much influenced by America's Coney Island amusement park of the 1890s, England has one of the finest amusement park and fairground ride heritages in the world. A surprising amount survives today. The most notable site is Blackpool Pleasure Beach, in Lancashire, which has an unrivalled heritage of pre-1939 fairground rides. Other early survivals in England include scenic railways at Margate and Great Yarmouth, and water splash rides in parks at Kettering, Kingston-upon-Hull and Scarborough that date from the 1920s.

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Front cover

A modern aerial photograph of Blackpool Pleasure Beach showing the complex landscape that evolved during the 20th century.

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Introduction

England has some of the finest amusement park and fairground ride heritage in the world. The most notable site is Blackpool Pleasure Beach, in Lancashire, which has an unrivalled heritage of pre-1939 fairground rides. These range from Sir Hiram Maxim's Captive Flying Machine (1904) and the River Caves (1905) to four inter-war rollercoasters – the Big Dipper (1923), the Roller Coaster (now the Nickelodeon Streak 1933), the Little Dipper (now the Blue Flyer (1934) and the Grand National (1935), the last Britain's only surviving, historic, twin-track, 'racing' rollercoaster. Worldwide there are only 35 rollercoasters which predate 1939, which emphasises how special this grouping is. Other early survivals in England include two scenic railways at Margate (Kent) and Great Yarmouth (Norfolk) and three water splash rides in parks at Kettering (Northamptonshire), Kingston-upon-Hull and Scarborough (North Yorkshire) that date from the 1920s.

All fairground rides can be at risk due to changing visitor tastes, and the early wooden rollercoasters are especially vulnerable to fire. In 2008 a quarter of the Scenic Railway at Dreamland in Margate was destroyed by fire, including the building containing the cars used on the ride. However, this ride, and historic rides in general, are still sufficiently popular that a new heritage amusement park is being established at Dreamland, allowing visitors to enjoy dozens of rides and amusements from a past era.

Figure 1
The August Fair at Bampton (Oxfordshire), which was important for the sale of horses, also served as a sort of carnival for neighbouring villages. Like other local fairs it included stalls and some rides. This 1904 photograph by Henry William Taunt shows schoolchildren patiently waiting to board the swings.

1 The Origin of Amusement Parks

The surviving seaside amusement parks at Blackpool, Great Yarmouth and Southport, Lancashire (re-opened), and Dreamland at Margate, were founded in the late 19th and early 20th century, but their origins can be traced back in Britain to the annual fairs that took place throughout the country and to the pleasure grounds that evolved during the 18th century. In addition, there is a clear debt to developments taking place across the Atlantic at Coney Island in Brooklyn (New York), where the earliest self-contained amusement parks established from the mid-1890s onwards provided the most direct model for Blackpool Pleasure Beach and subsequent amusement parks.

1.1 Annual fairs

the annual fairs held in towns and villages where goods were traded also provided opportunities for people to gather and enjoy entertainment (Fig 1). Although fairs were a temporary, though regular, event, there is evidence that at some fairgrounds permanent structures were erected. Stourbridge Fair at Cambridge (Cambridgeshire) was a notable commercial market and on its site six or seven brick houses were built for visitors to dine in. At Weyhill (Hampshire) a range of former booths (listed Grade II) dating from the first half of the 19th century encloses an elongated U-shaped yard. These were erected by hop growers to market their produce and are the last vestiges of Weyhill Fair, which was first documented in 1225.

During the 18th and 19th centuries the commercial dimension of fairs declined in favour of entertainment, and fairs were joined as travelling attractions by circuses and menageries. The menagerie of Thomas Atkins (1763/4-1848) included an elephant, as well as perhaps the first recorded litter of liger cubs offered for show, while at one stage George Wombwell's more famous and larger menagerie included twenty lions and five elephants. In the second half of the 19th century the self-appointed 'Lord' George Sanger (1825?-1911) became the most prominent circus proprietor and menagerie owner, and through his establishment of a permanent base in Margate he has a direct role in the origins of the town's Dreamland and the modern amusement park.

1.2 Pleasure gardens

a second strand in the origins of amusement parks is the pleasure gardens that existed in London, major cities and seaside resorts. The earliest had been created in London during the 17th century. New Spring Gardens, later called Vauxhall Gardens, was opened in London soon after 1660 and by the 18th century the city was said to have more than 60 (Fig 2).

Figure 2
London's Cremorne Gardens, in Chelsea, was established in 1843.

This photograph shows the Fireworks Temple in the 1870s.

The pleasure gardens of London were the inspiration for similar attractions at England's emerging seaside resorts. One of the earliest was at Margate where the remains of the medieval Dent-de-Lion fortified house at nearby Garlinge became a destination for visitors by the third quarter of the 18th century. The gateway of the house still survives and is listed Grade II*. Margate's Tivoli Gardens opened in 1829 providing a spacious park with a concert hall, a bowling green, an archery ground, refreshment rooms and walks. At nearby Broadstairs (Kent), the Ranelagh Gardens at St Peter's was created as a replica of the Tivoli Gardens in Rome. Unusually, two of its buildings have survived (listed Grade II).

At the other end of England the growing town of Blackpool (Lancashire) began to provide its visitors with pleasure grounds in the mid 19th century. Belle Vue Gardens was created in the 1860s as an inland destination for visitors. Raikes Hall Gardens opened nearby for its first full season in 1872. It provided its customers with fireworks, circus acts, dancing, acrobats and a range of other lively spectacles. The Gardens contained a substantial conservatory, as well as a Grand Pavilion capable of accommodating 10,000 people and a dancing platform that catered for 4,000. During the next 25 years new attractions were added including a tricycle track, a camera obscura and a switchback railway. Raikes Hall Gardens was in effect a proto-amusement park, a few miles from where Blackpool Pleasure Beach would develop in the forthcoming decade.

1.3 Coney Island

Although Britain has a long tradition of providing enclosed pleasure gardens, the immediate antecedents for Blackpool Pleasure Beach and subsequent amusement parks in Britain were in the entertainment complexes created along the beach at Coney Island in New York. By the

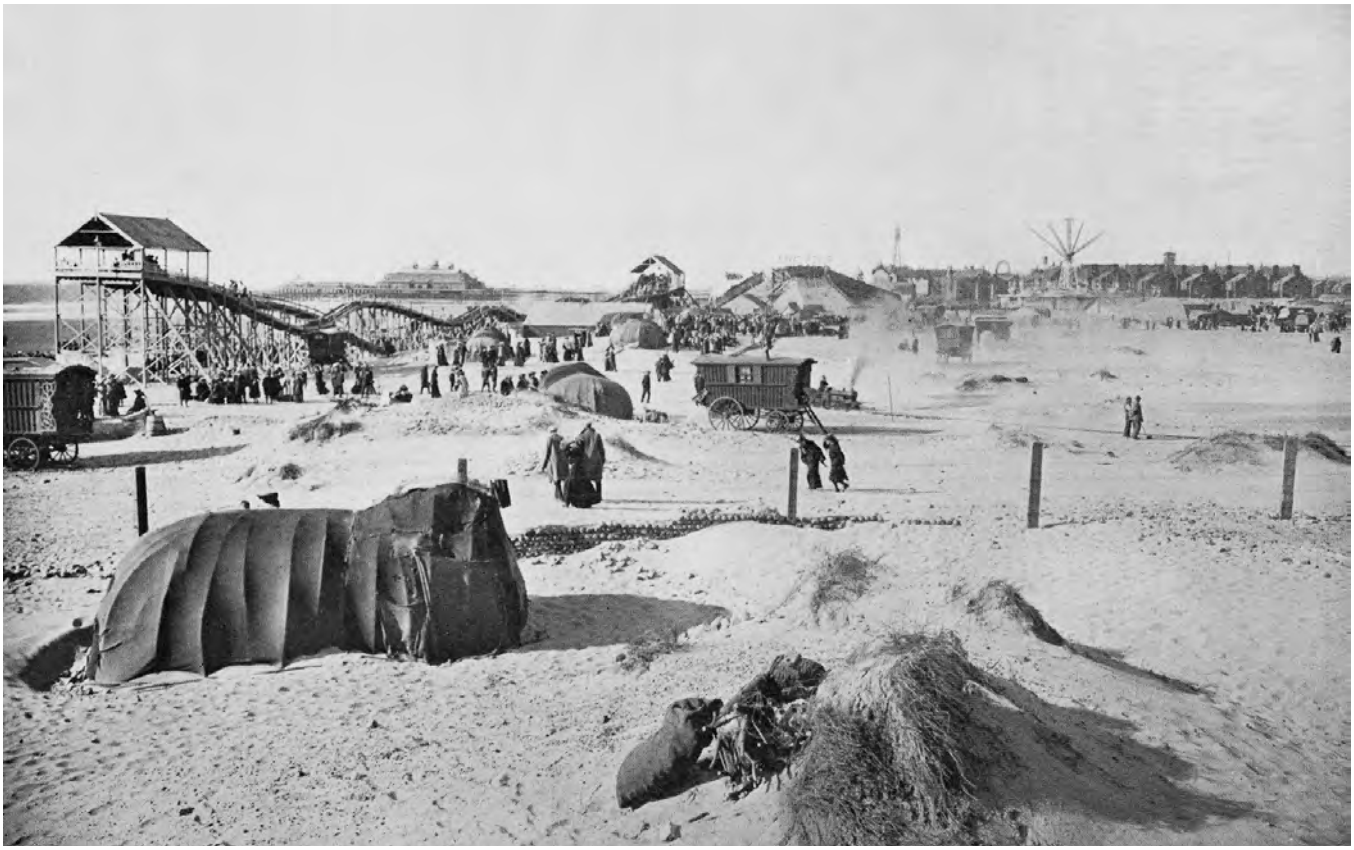

Figure 3
This photograph shows Sir Hiram Maxim's new Captive Flying Machine and the River Caves amid Blackpool's dunes, and so must date from about 1905. Gypsy families, seen here, were evicted in 1910.

1890s this coastline was a crowded, noisy, 24 hour-a-day playground with carousels and scenic railways lit by thousands of electric lights. In 1895 Captain Paul Boyton opened Sea Lion Park, the first enclosed amusement park with an admission fee. Its immediate inspiration seems to have been the international exhibition at Chicago in 1893, which featured rides in a brightly illuminated electrical landscape.

By the early 20th century three vast parks had been built along the seafront at Coney Island: Steeplechase (opened in 1897), Luna Park, built on the site of Boyton's first, unsuccessful park (1903); and Dreamland (1904). These established a blueprint for all early amusement parks, featuring a range of mechanical rides including the latest rollercoasters, panoramic spectaculars, dance halls, stalls and amusements. Today, Coney Island no longer glitters so brightly, but the footprints of the parks are still evident. The Cyclone, a wooden rollercoaster of 1927, still operates and is rated by enthusiasts as one of the greatest rides in the world; the structure of Parachute Jump (1939) also survives.

2 Blackpool Pleasure Beach

Britain's first enclosed seaside amusement park evolved from the mid-1890s on a stretch of Blackpool's shoreline south of the Victoria Pier. The first attractions were small-scale rides, fairground booths and stalls created as concessions in the sand dunes on plots of rented land (Fig 3). The title of 'The Pleasure Beach' first appeared on advertisements in 1905, indicating that the process of consolidating the ownership of the plots and rides was under way.

Figure 4

The Fun House at Blackpool Pleasure Beach of 1934 combined an interior mechanism by the American engineer Charles Paige with the Moderne external shell by Joseph Emberton. It had an interior with moving platforms, cylinders, dark corridors, a rocking floor, an ice walk, a drop floor and centrifugal drums.

Figure 5

This terrestrial photograph from the Aerofilms collection shows Blackpool Pleasure Beach after the Second World War. Emberton's attempt to create a unified visual identity is obvious, as is the crowded landscape filled with exciting rides. To the left is the Fun House while the Captive Flying Machine is to the right.

In 1906 over three million people visited the Pleasure Beach. Here they could enjoy Sir Hiram Maxim's Captive Flying Machine, the River Caves, the Hotchkiss Bicycle Railway and a switchback as well as a range of other attractions, sideshows, a restaurant and a tea house. The first element of theming appeared in 1906 with the creation of the Spanish Street of buildings, revamped as Ye Olde Englysche Street in 1912. The most important development before the First World War was the 1913 Casino, by the local architect R.B. Mather. It contained a billiard hall, the park's first cinema, a grill room, restaurant and shop behind a white ferro-concrete façade decorated with white electric lights. It was demolished to allow the construction of a new casino in the late 1930s.

Until the early 1930s Blackpool Pleasure Beach evolved in a piecemeal fashion. The need for some uniformity of design was recognised, and in 1931 the Philadelphia architect Edward Schoeppe was employed to conceive a new frontage to the park, including the 600-seat News Theatre, the front of the Velvet Coaster and a new façade for Howell's Photographic Studio, which he wittily designed to resemble a camera. Inspired by the impact of these new features, the park employed the British architect Joseph Emberton from 1933 to create an overall visual unity and to design new structures such as the Fun House of 1934 (destroyed; Figs 4 and 5).

In the late 1930s Emberton undertook his two largest commissions for the Pleasure Beach. In July 1937 the 2,000-seat Ice Drome opened with its rink beneath a wide, unsupported roof, although in July 1949 a fire caused considerable damage, leading to extensive repairs that were completed by 1951. Once the Ice Drome was completed, work moved on to the erection of the new Casino. The oriental style Casino of 1913 was demolished and its replacement, which cost £300,000, opened in May 1939. Emberton's design consisted of a huge concrete drum, constructed in reinforced concrete on a series of frames radiating from the centre to allow long, unsupported spans. After the Second World War there was a continuing programme of investment in the fabric of the park, as well as in new rides to reflect the changing tastes of visitors to Blackpool.

3 Seaside Amusement Parks

Blackpool served as a model for other seaside amusement parks. The Kursaal (its name derived from the German term for a public room at a spa resort) at Southend-on-Sea (Essex) opened in July 1901 with gardens, amusements, a cycle track, a café and a menagerie and circus. The public face of the Kursaal was a large, red-brick structure with ashlar detailing dominated by a tall, Wrennaissance-style dome (listed Grade II).

In 1909 the Pleasure Beach at Great Yarmouth was established including a Scenic Railway set within a plaster mountainous terrain. In the 1920s the park expanded, but in 1928 the lease of the Scenic Railway ended and the ride was transferred to Aberdeen. A new Scenic Railway was purchased from Paris and opened in 1932. As with its predecessor, an alpine landscape with castles entertained the riders on its circuit. The ride was reclad in the 1960s and is one of only two Scenic Railways in Britain. At the north end of the seafront at Great Yarmouth there is also the Venetian Waterways of the 1920s, offering visitors a chance to boat along miniature canals beneath bridges meant to replicate the joys of that Italian city (registered Grade II).

Frontierland at Morecambe (Lancashire) also opened in 1909, when it was called the West End Amusement Park. Today the only remnant of the park is the tall Polo Mint tower, which was formerly the Space Tower at Blackpool Pleasure Beach, a 150-foot (46 m) gyro tower that had to be removed when the Big One rollercoaster was installed in 1994.

Pleasureland at Southport has been operating since 1913, when it opened with a figure-of-eight rollercoaster and a slide (Fig 6). The park, which closed in 2006, contained several historical rides, including the Cyclone, a 1937 wooden rollercoaster that was demolished soon after the park closed. Pleasureland re-opened in July 2007.

Apart from Blackpool Pleasure Beach, the most famous seaside amusement park is Margate's Dreamland. Previously, from the 1860s, this was the location for the Hall-by-the-Sea entertainment complex, which by the 1870s was the winter base for the menagerie of the circus proprietor 'Lord' George Sanger. During the late 19th century Sanger developed the site to include ornamental pleasure gardens, a small lake, a 'ruined abbey' folly and a roller skating rink. At the end of 1919 the site was sold to John Henry Iles (1871-1951) who was marketing rollercoasters for L.A. Thompson's Scenic Railway Company in Britain and Europe. The site, renamed Dreamland to evoke some of the glamour of Coney Island, opened again in April

Figure 6

An Aerofilms photograph of Southport Pleasureland in 1928 reveals that the park contained two early roller coasters, a large water splash ride and a version of Sir Hiram Maxim's Captive Flying Machine.

1920 with an amusement park and cinema. In 1923 the existing ballroom was re-used as a 900-seat cinema and a new ballroom, the Palais de Danse, was created in the former roller skating rink. In 1935 the present Dreamland Cinema was opened with a 2,200 seat auditorium and a multi-entertainment complex. After decades of changing ownership, under-investment and declining visitor numbers Dreamland opened for the last time in summer 2006 (Fig 7). By then all the fixed rides, with the exception of the Scenic Railway, had been removed. In April 2008 an arson attack destroyed about a quarter of it, including the two 'pull-up' inclines and the workshop containing the cars (listed Grade II*). It will be the centrepiece of a new Heritage Amusement park, which opened in 2015.

Figure 7

This photograph of 2007, taken a year before the fire, shows the Scenic Railway at Dreamland in Margate. The rest of the park had been cleared by this date. The large structures in front of the ride are the remains of Sangers' park and the 1935 Dreamland Cinema.

4 Urban and Rural Amusement Parks

While seaside resorts were the traditional and perhaps best-known location for amusement parks, some inland towns and cities similarly offered their populations municipal parks with rides. As well as some miniature railways, there are examples of inter-war water splash rides in three parks. Charles Wicksteed, engineer, manufacturer of children's playground equipment and founder of Wicksteed Park at Kettering (registered Grade II), built there in 1926 one of the earliest surviving water-based rides in the world, the 'Waterchute'. Now, as then, it gives the occupants of a boat the opportunity to plunge into the water at speed, after being launched from a tower down a ramp. The 1929 ride in East Park at Kingston-upon-Hull was also by Wicksteed, and a third splash ride survives in Scarborough's Peasholme Park (registered Grade II).

Urban amusement parks, such as at London's Battersea (closed 1977; registered Grade II*), Sutton Coldfield in the West Midlands (now just with children's rides) and Manchester Belle Vue (closed 1981) were often as popular as seaside parks. Many cities also hosted major exhibitions that included fairground rides (Fig 8). In London, early 20th-century exhibitions at Earl's Court, Kensington's Olympia and Shepherd's Bush's White City all had areas containing amusements that lasted for the duration of the exhibitions, before being dismantled and sometimes re-erected elsewhere.

However, during the second half of the 20th century there was a major shift from seaside and urban parks to newly established attractions in the countryside. At Alton Towers (Staffordshire), the home of the Earls of Shrewsbury, the gardens (registered Grade I) were opened to the public in the 19th century, and from 1924 it was promoted as a tourist attraction. During the Second World War the gardens were requisitioned by the military and remained closed to the public until 1951 when fairground attractions were provided. From 1973 the estate was run as an amusement park with some of England's most audacious rides, and in the years after 2010 attracted around 2.5 million visitors a year. Drayton Manor Park at Tamworth (Staffordshire), once the home of Sir Robert Peel, the mid 19th-century Prime Minister, became 'Drayton Manor Park and Zoo' in the 1970s, and in the 1980s a theme park. Chessington World of Adventures (London Borough of Kingston upon Thames) had different origins; it began as a zoo in 1931 and became one of Britain's first theme parks in the mid-1980s, providing riders with adventurous, atmospheric rides set in locations around the world.

Figure 8

This photograph taken by John Gay in 1955 shows the water splash ride at Battersea.

5 Development of Large Fairground Rides

Since the 17th century some annual fairs had small rides powered by men or horses. A photograph of about 1860 shows Twigdon's Riding Machine, with riders sitting on wooden horses on a ring-shaped platform that was held up by cables and was pushed around a central pole, a ride similar to the Witches Hat.

By the 1860s the process of applying steam power to rides was underway. By 1870 Frederick Savage, a well-known fairground engineer from King's Lynn (Norfolk), produced the steam-powered Velocipede, a ride incorporating bicycles, although his firm would become more famous for its gallopers (see below). Later the internal combustion engine and electricity would transform fairgrounds, with larger, faster, brilliantly-illuminated rides that created a magical entertainment landscape. This new technology required significant investment and therefore showmen increasingly concentrated on larger fairs, resulting in the decline of the smaller, traditional, village fair. It also led to the creation of the earliest, purpose-built, permanent amusement sites.

Blackpool Pleasure Beach has two rides that date from the beginning of the 20th century, although both have been updated to reflect later tastes. Sir Hiram Maxim's Captive Flying Machine, the oldest ride in continuous use in Europe, first operated at Blackpool in 1904 and thus predates the foundation of the Pleasure Beach; early photographs show it standing among the sand dunes. Maxim (1840-1916) was an engineer, the inventor of the Maxim machine gun and an unsuccessful pioneer of powered flight. His Captive Flying Machine, devised in 1902, was first shown at the Earls Court exhibition in 1903 and then appeared at Blackpool. It consists of a series of steel arms from which cables hang to support cars, which were originally in the shape of boats. The early gondolas were replaced in 1929 by aeroplanes, and these in turn in 1952 by rockets – updates designed to keep the ride seemingly at the forefront of technology. The arms rotate around a central 30m-high shaft, allowing the cars to fan outwards as they turn. In 1934 Joseph Emberton designed a new building at the base of the ride as part of his concerted re-invention of the park's townscape.

Blackpool's second early 20th-century ride is the River Caves, opened in 1905. Consisting of a series of boats that pass through 'caverns' with tableaux lit by electric lights, it had become popular in 1904 in America and had been introduced to England at Earl's Court. The ride has survived although the interiors have been updated. Before its removal in 2007, there was a similar example at Pleasureland at Southport. Water chutes, which provide a dramatic plunge into water after a swift descent down a ramp, had appeared at Southport and Blackpool in the 1900s, and remain popular at many amusement and municipal parks today.

6 The Origins and Development of Rollercoasters

Blackpool and other amusement parks have always had a wide range of rides, but the key to their success, and the ride at the heart of the amusement park experience, is the rollercoaster. Within this broad category, there have been a number of types of rides that exploit gravity to create thrills for riders, the height and speed of the ride being dependent on the construction materials and the technology employed to keep the cars safely on the track.

The origins of rollercoasters can be traced back to ice slides created in Russian cities, and by the late 18th century St. Petersburg had the first rollercoaster using small cars with wheels that ran in shallow grooves down the hill at the Gardens of Orienbaum. In 1804 the first 'Montagnes Russes' appeared in Paris, and after 1815 they became regular features in Parisian pleasure gardens. Soon after examples appeared in England: a story in an 1823 magazine includes an early reference to 'Russian Mountains' near the harbour at Margate, while an advertisement in October 1823 announced that a 'Montagne Russe' at London's Sadler's Wells would soon be closing.

Although these can now be seen as prototypes for the rollercoaster, the true lineage of the modern ride originates in the USA. The Mauch Chunk Railroad (Pennsylvania) was a gravity-powered railroad created in 1827 to transport coal. It took 30 minutes for wagons to descend and three hours for mules to return the cars to the top of the track. A second figure-of-eight track was created in 1846 with two steam-engines to haul up the cars. It had ceased to be used for industry in 1872 and instead became a huge tourist attraction.

LaMarcus Adna Thompson (1848-1919), who in adolescence became a skilled carpenter, rode the railroad during the 1870s and after a successful career as a manufacturer of women's seamless hosiery, turned to designing rollercoasters. He opened the first, small, rollercoaster at Coney Island in 1884, and within four years fifty had been built. In Britain the first of Thompson's Patent Switchback Railways opened at Skegness in June 1885, and in 1887 he opened an office in London.

Thompson's ride was linear, but in 1884 another rollercoaster at Coney Island, by Charles Alcoke, tied the ends of the tracks into an oval shape. In the following year Philip Hinkle added a ride that included a lift-cable to pull the cars up to the top of a higher hill, meaning a more thrilling ride. To ascend the lift hill, a chain was engaged by sprockets beneath the car and once the car reached the top of the hill, the chain looped back, releasing the car to make its descent. The arrival

Figure 9

In this 1931 Aerofilms photograph of the Southend Kursaal, the 1910 Scenic Railway dominates the rear of the site with a large water splash ride to the right. There was a plan to erect a 530-foot (161 m) high tower, but this was never built.

of these improved rides led Thompson to begin to work with the designer James A. Griffiths to create the Scenic Railway. This opened in 1887 in Atlantic City (New Jersey) and during the ride the cars ran through elaborate artificial scenery illuminated by lights triggered by the approaching cars.

A key figure in the technical development of rollercoasters was John A. Miller (1872-1941), Thompson's chief engineer since the development work on the Scenic Railway. In the course of designing dozens of rollercoasters he patented many key features of modern examples including the ratchet system to prevent cars sliding back down the lift hill, braking systems, the locking safety-bar in coaster cars and, perhaps most significantly, in 1912 the use of the under-friction system to hold cars on to the rails. It was this last innovation that allowed rollercoasters to achieve the terrifying heights they had reached by the early 21st century.

These first switchback railways were superseded in Britain before 1910, by when larger figure-of-eight rides had appeared, including a Scenic Railway (1907) and the short-lived Velvet Coaster (1909), both at Blackpool. Southend Kursaal had the Harton Scenic Railway of 1910, which survived until the park closed in 1973, while Margate's Scenic Railway of 1920 has survived and became a Grade II-listed building in 2002, revised later to II* to reflect its importance and rarity (Fig 9).

In 1901 the first successful looping rollercoaster was created, a ride called the Flip-Flap; an earlier version achieved the feat in 1895 at Boyton's Sea Lion Park on Coney Island, but at the price of spinal injuries. In the 1930s the rollercoaster boom came to a halt due to the Great Depression, but this was also a time when the first steel structures and aluminium cars were introduced. Steel had become commonplace by the 1950s and in combination with new technologies, such as using a tubular steel track and cars with polyurethane or nylon wheels, and other innovations to hold cars on to the track, rollercoasters have grown to almost reach the 500-foot high mark. The corkscrew steel

Figure 10
The Big One at Blackpool Pleasure Beach was the world's tallest rollercoaster when it opened in 1994; today there are some that are almost twice as tall!

rollercoaster was invented in 1968, the suspended coaster appeared in 1981 and the first standing-up ride opened in 1982.

New rides continue to be developed, providing ever-more exciting experiences for thrill-seekers. In Britain the ultimate seaside rollercoaster is the Big One, opened in 1994 at Blackpool Pleasure Beach, with speeds over 70mph and an initial, blood-curdling drop of over 200 feet (61 m; Fig 10). At Lightwater Valley (North Yorkshire) the Ultimate, which is Europe's longest rollercoaster, provides customers with a 1.5 mile-long, six-minute ride, while the new attraction at Alton Towers, The Smiler, provides riders with a world record of fourteen loops.

7 Types of Early Rollercoaster

7.1 Switchback railways

First patented in 1884 this was the earliest true rollercoaster. Riders climbed up to the top of the track and boarded the car, which was pushed out of the station and slid down the track over some slight undulations. At the other end the car was emptied and raised to a second station, from where it was again occupied and pushed back to the start of the ride. This early type of ride was not particularly thrilling and required much physical effort by its operators. Thirty were built in Britain, and three of these were operated at more than one location. The earliest in Britain was at Skegness in 1885. None survives, and the last was probably demolished in the late 1930s.

7.2 Side friction rollercoasters and figure-of-eight rollercoasters

In side friction rollercoasters the cars run on wheels that carry the weight, while 'side friction' guide wheels projecting from the side of the undercarriage of the cars run against vertical boards along the side of the track. This allowed steeper inclines and tighter, faster curves, but as the trains were not firmly anchored to the track and could derail if they took a corner too fast, the largest side friction coasters required a brakeman to ride on each train.

Figure-of-eight rollercoasters had a track with a figure-of-eight plan. The earliest appeared in America during the 1880s, with the first British examples dating from 1908. A hoist was used to raise cars up the lift hill until they were released to travel over the gently descending circuit. They were held onto the track using side-friction wheels and the only one still in use in the world is the 1902 'Leap the Dips' at Lakemont Park, Altoona (Pennsylvania).

It is difficult to say how many of this type of ride was built as side-friction technology was also applied in Scenic Railways and other types of ride, but an estimate of 38 British examples has been made by Nick Laister. In Britain there seem to have been 34 figure-of-eight rides, three of which were erected in one location and later re-erected elsewhere. None survive today.

7.3 Scenic Railways

Scenic Railways usually had cars that ran along routes through scenic dioramas, frequently including exotic or mountain scenes. However, it is possible to have a Scenic Railway without scenery (such as the example at Dreamland) and it could incorporate side-friction or under-friction technology in the ride. Thirty-one were built in Britain, and two of these were operated at more than one location. The first had appeared in America in 1887, but the earliest in Britain only dates from 1907 when the Scenic Railway at Blackpool and the Scenic Railway at White City, Manchester were built. Two survive today, at Margate and at Great Yarmouth.

7.4 Under- friction rollercoasters

The under-friction system (also known as the upstop) was patented in 1912 by John A. Miller. It consisted of wheels beneath the car that would hold it to the underside of the track. A variation of this replaced the wheels with a bar holding the car firmly to the track. These systems allowed new heights to be scaled and hence greater speeds. The earliest example in Britain, the Big Dipper at Blackpool, was opened in 1923, and still survives. It is unlisted. Eight of these rides were built before the outbreak of the Second World War.

Figure 11

This set of gallopers stands on the seafront at Bournemouth (Dorset). Despite this type of ride being over a century old, it is still popular with children and adults alike.

8 Other Fairground Rides

8.1 Gallopers

In 1876 Charles Loof built Coney Island's first carousel – a rotating circular platform with seats for riders, typically carved horses – to which Brooklyn carousel makers introduced the up-and-down 'galloping' movement using overhead cranks. In 1893 Frank Bostock brought a set of the resulting gallopers to Britain and these were soon very popular attractions at fairs. A number of gallopers survive today, or are modern recreations of the historic ride. On the seafront at Southport Herbert Silcock's Golden Gallopers has become a semi-permanent feature of the resort. It was built at the turn of the century by Savages of King's Lynn and was purchased by Silcock's in 1989. The Dingles Fairground Heritage Centre at Lifton (Devon) has a set of gallopers that were built by Savages for an unknown owner. They were purchased in 1916 by the Swindon showman, Robert Edwards, from Halsteads, the roundabout manufacturers and brokers from Sowerby Bridge, Yorkshire. The travelling Carters Steam Fair has a set of gallopers that were originally built by Robert Tidman & Sons of Norwich in 1895. Its smaller size allows it to be transported around the country. Gallopers are also a feature on some of Britain's leading piers, including the Palace Pier in Brighton (East Sussex), and there is a set dating from 1919 at Blackpool Pleasure Beach as well as one at Bournemouth(Fig 11).

8.2 Big Wheels

The Ferris Wheel, designed by George W. Ferris for the 1893 Chicago Fair, was 264 feet in diameter with 36 cars each carrying 60 people. It was dismantled after a few months, but it had captured the imagination. A similar wheel was erected at Earl's Court in 1894, but as it had technical problems the civil engineer Hubert Cecil Booth (1871-1955) was employed to assist with correcting the faults. He was subsequently commissioned to erect similar wheels at Blackpool, Vienna and Paris. Paris's wheel was dismantled in the 1920s, while Vienna's wheel, the Wiener Riesenrad, which was the star of the 1949 film *The Third Man*, is still operating today.

At Blackpool, a 200 foot-diameter wheel weighing 1,000 tons was built at the Winter Gardens by the Blackpool Gigantic Wheel Company. It opened in 1896 at a cost of £50,000 (Fig 12). Although it was said to be slow, jerky and uncomfortable, it operated until 1928. One of the last traces of this structure is one of the cars, which has been incorporated into the Abingdon Street Market as a small security office set within the roof trusses.

Inspired by the Ferris Wheel, the Eli Bridge Company of Jacksonville (Illinois) created a transportable, fairground version, and by 1975 around 1,200 had been built. This type of ride appeared at many fairgrounds and amusement parks, but it was not until the London Eye opened in 2000 that the slow observation wheel returned to its monumental roots (Fig 13).

8.3 Water Chutes

The first water chute appeared in 1893 and log flumes and a range of water splash rides are still popular. A water chute was created at Southport in 1903 and at Blackpool Pleasure Beach a 65-foot (20m) high example was erected in 1907,

Figure 12

The Wheel at the Winter Gardens at Blackpool, seen here about 1900, had a steel axle that was 41 feet (12 m) long and weighed 28 tons, apparently making it the largest in Europe. Two engines on the north side rotated the wheel, which had 30 cars attached to it, meaning that it could carry 1,000 people on each trip.

propelling 55 boats per hour, each with their own gondolier, down a 267-foot (81 m) long chute. As noted above, three water chutes dating from the 1920s can still be seen in parks: Wicksteed Park, Kettering; East Park, Kingston-upon-Hull; and Peasholme Park, Scarborough.

8.4 Swings

Swings of various types have been features of pleasure gardens from the 18th century. 'Chairoplanes' were patented by John Inshaw from Birmingham in 1888, while in 1904 Rudy Uzzell patented a set of swinging chairs in Colorado. In 1904 the opening of 'Sir Hiram Maxim's Captive Flying Machine' at Blackpool Pleasure Beach saw the swings being changed into gondolas. A few weeks later he opened another at Southport and in 1907 there was a similar ride on Birnbeck Pier, on the Bristol Channel at Weston-super-Mare (Somerset). Sir Hiram Maxim's Captive Flying Machine, which is unlisted, is the only old ride of this type that survives, though many fairgrounds have modern versions of this popular ride.

8.5 Smaller rides

The modern amusement park and fairground has a bewildering range of rides, ranging from novel

attractions to variations on older rides. The first dodgem track was invented in 1921; Billy Butlin (1899-1980) saw its potential and imported the first dodgems into Britain in 1928.

There are also modern variations on the carousel. The Derby Racer was constructed at Blackpool Pleasure Beach in 1959. In this carousel 56 wooden horses move back and forward, and up and down as they go round at up to 25 mph. The ride is set within a modernist polygonal shell lit by a thousand light bulbs and riders enjoy music provided by an organ brought from Antwerp.

Modern parks include powered launch rides where riders are propelled vertically at high speed up a tower or on cables. In 1997 the Ice Blast opened at Blackpool Pleasure Beach with a 185-foot (56 m) high tower up which riders are fired into the sky, while at Fantasy Island at Ingoldmells (Lincolnshire) the Volcano shoots riders vertically up to 200 feet (61 m) at 70 mph. Blackpool's South Pier offers the Sky Coaster and the Sky Screamer, rides that catapult the bravest high into the sky using tensioned cables.

While these rides are aimed at adults, amusement parks also include more sedate versions for children, such as small carousels and rollercoasters, and there are also smaller attractions equally suitable for adults or children. The helter skelter, which is gradually disappearing from resorts, is still popular where it survives: Blackpool Pleasure Beach had one by 1906, and the current example on Brighton Pier has been there since 1977, replacing its predecessor, which was destroyed in 1972.

Figure 13

The London Eye is a modern engineering marvel. The entire structure is 443 feet (135 m) tall and the wheel has a diameter of 394 feet (120 m). Although only designed as a temporary structure, it is now very much part of the London skyline and an symbol of the capital city itself.

9 Change and the Future

Seaside amusement parks have been in a serious decline in England, with Blackpool, Great Yarmouth and Southport (re-opened) being the only traditional parks that have remained open. There are also some modern parks, most notably the large Fantasy Island park at Ingoldmells (Lincolnshire) and the Brean Leisure Park near Weston-super-Mare (Somerset). In recent years there has also been a trend towards providing smaller parks nearer the heart of resorts such as that beside the harbour at Scarborough or near the pier as at Southend-at-Sea. Some seaside piers are now also the home to fairground rides. With space being limited many attractions are inevitably aimed at younger riders, but Blackpool's South Pier offers the Sky Coaster and the Sky Screamer, rides that catapult the adventurous high into the sky.

Today the only fairground rides that enjoy statutory protection are Margate's Scenic Railway at Dreamland (Grade II*) and the Water Chute at Wicksteed Park at Kettering (Grade II). However, England has a rich heritage of amusement park rides and Blackpool Pleasure Beach has the finest collection of historic rides in the world. Great Yarmouth also has an early Scenic Railway of international importance. In due course national and local listing is likely to include these to reflect their importance to telling the story of our seaside holidays.

9 Further Reading

In recent years scholarly surveys of the amusement park have begun to appear, the most recent being Deborah Philips's book *Fairground Attractions: A Genealogy of the Pleasure Ground* (2012) and Josephine Kane's *The Architecture of Pleasure: British Amusement Parks and the Architecture of Pleasure 1900-1939* (2013). John Walton and Jason Wood (eds) *The Amusement Park: History, Culture and the Heritage of Pleasure Ashgate*, (forthcoming,, 2015). Britain's most important amusement park is covered in works by Peter Bennett, *A Century of Fun* (1996), John K. Walton *Riding on Rainbows* (2007) and Vanessa Toulmin, *Blackpool Pleasure Beach* (2011). Gary S. Cross and John K. Walton compare the histories and character of Coney Island and Blackpool in *The Playful Crowd: Pleasure Places in the Twentieth Century* (2005). The other parks afforded some detailed consideration are Dreamland at Margate, which Nick Evans describes in *Dreamland Remembered* (2009) and the Kursaal at Southend, which is covered by Ken Crowe in *Kursaal Memories: A History of Southend's Amusement Park* (2003). General books on the seaside also discuss fairgrounds and their rides, including Allan Brodie and Gary Winter's *The English Seaside Resort* (2007) and two other Historic England books on individual resorts, *Margate's Seaside Heritage* (2007) and *Blackpool's Seaside Heritage* (2014).

Many books describe and pay homage to the rollercoaster, including

Robert Cartmell, *The Incredible Scream Machine* (1987), Robert E. Preedy ***R****oller Coasters –Their Amazing History* (1992), Mark Wyatt, *White Knuckle Ride* (1996), Mike Schafer and Scott Rutherford, *Roller Coasters* (1998), David Bennett, *Roller Coaster* (1998), Martin Easdown, *Amusement Park Rides*, (2012) and Steven J. Urbanowicz, *The Roller Coaster Lover's Companion* (2002). The most important online resource is the Roller Coaster DataBase, http://rcdb.com/ , a remarkable record of rollercoasters past, present and future.

In terms of antecedents, David Kerr Cameron's *The English Fair* (1998) and Sarah Jane Downing's *The English Pleasure Garden 1660-1860* (2009) both provide sprightly introductions. Fairs on urban commons are discussed in Mark Bowden, Graham Brown and Nicky Smith's *An Archaeology of Town Commons in England: A Very Fair Field Indeed* (2009). For municipal parks, which provided a generally sober alternative, and counterpoint, to amusement parks see Hazel Conway, *People's Parks: The Design and Development of Victorian Parks in Britain* (1991).

10 Acknowledgements

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