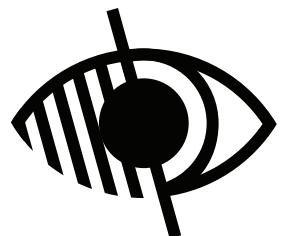


# FOOTBALL: Designing the Beautiful Game

Large print guide

the  
**DESIGN**  
**MUSEUM**



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# Performance

It costs almost nothing to play football, allowing talent and creativity to flourish in incredibly diverse settings. Unlike sports such as tennis, swimming or gymnastics, it does not depend on expensive equipment and can be played almost anywhere. The only essential requirement is a ball, and even this can be fashioned from any number of humble materials. This is one of the reasons for the game's immense popularity.

As with all professional sports, however, football is forever searching for a competitive edge. The football industry is continually devising new tools to allow teams to play longer, faster and more consistently. These range from lightweight boots and aerodynamic balls to shock-absorbent pitches and restorative exercise routines. The development of these tools amounts to a concise history of how football was professionalised. It also demonstrates the ever-growing resources that go into producing top players.

**Football made from maize meal  
sack and tied with string, Zambia**

2011  
National Football Museum

**Football made from banana leaf, Uganda**

2007  
National Football Museum

# Equipment

Games that involve kicking a ball have been played for centuries, but football as we currently know it originated in the late 1800s. It has evolved dramatically over the past 150 years, with innovations in the design and production of core pieces of equipment — such as the boot and the ball — embodying these changes and reflecting new levels of professionalisation. These developments also reflect broader shifts, such as the influence of international styles of play and the use of innovative materials. Highly specialised equipment is increasingly being designed with the aim of providing the player or team with even small advantages in the fanatical pursuit of victory. More recently, the game also seeks to increase diversity and facilitate greater participation in the sport.

## Harrow School ball

1800s

Although the origins of football are disputed, the game as we know it today evolved out of Britain's elite public schools, where different forms of the sport developed with their own rules and styles of equipment. At Harrow School in north-west London, this heavy ball made from an animal bladder enclosed in thick leather would have been dribbled, kicked and caught in a muddy field. The materials could withstand the conditions, but would increase in weight as they absorbed water and were therefore not suited to heading.

National Football Museum

## Girls' boots, worn to play football

1890

In the 1800s, men and women played football wearing leather work boots. They were a very high cut, sometimes with a reinforced toecap made from steel, which was designed to withstand working conditions. These features made them suitable for kicking the large and heavy balls used at the time. A similar style of boot was worn by members of English amateur football club Corinthian (active from 1882 to 1939), which is believed to have popularised the game around the world and was famed for its high regard for sportsmanship and fair play.

National Football Museum

## Lillywhites Gentlemen's boots, of the type worn by Corinthians

Lillywhites, 1890s  
National Football Museum

## Early match ball

c.1890s

As the game developed in the late 1800s, equipment became standardised. The ball's dimensions were set at 27–28 inches (69–71cm) in circumference and 12–15 ounces (340–425g) in weight. The first mass-produced ball to meet these criteria was the seven- or eight-panel 'button end' ball. William Shillcock of Birmingham, one of several manufacturers, sold 40–50,000 balls a year globally by the 1900s.

National Football Museum

## Football pump

Early 1900s

The hand pump was a particularly important piece of technology in the development of footballs. It was used to inflate inner bladders, making the arduous task of inflating footballs by mouth through a clay pipe unnecessary. The first brass hand pump was invented in the late 1800s by Richard Lindon, whose wife had died after contracting a lung disease from blowing into contaminated bladders.

National Football Museum

## Pair of 'Cup Tie' boots with reinforced strap

c.1910

In 1863, the Football Association (FA) banned dangerous protrusions, such as nails, from boots. Soon after, boots specially designed for football started to be produced, with the introduction of leather studs. Typically, six of these were hammered into each sole. They would double in weight when wet, however, making them particularly heavy.

National Football Museum

## Boot room of the South Stand at Ibrox Park, Glasgow

Courtesy of Mirrorpix/Daily Record

## 1930 FIFA World Cup™ balls

The FIFA World Cup, football's foremost tournament, was first held in 1930. The final, between Argentina and Uruguay, took place at the Estadio Centenario in Montevideo, Uruguay. Mistrust on both sides meant that a different ball was used for each half of the match. Argentina supplied a 12-panel ball for the first half, and took a 2–1 lead. Uruguay swapped this for an 11-panel T-model ball for the second half, beating Argentina 4–2 and making them the first ever winners of the World Cup.

From left

Match ball from the 1930 FIFA World Cup™ final,  
supplied by Argentina  
1930

National Football Museum, on loan from The Neville  
Evans Collection

Match ball from the 1930 FIFA World Cup™ final,  
supplied by Uruguay  
1930  
The Priory Collection

## Saddler's clam, a tool for making T-model balls

c.1940s

Thomlinson's of Glasgow and Mitre of Huddersfield were two of the most important football manufacturers in the UK in the mid 1900s. Thomlinson's T-model ball — its name referring to the shape of its leather panels — was used in senior leagues as well as internationally. Thomlinson's Greenbank Leather Works factory produced around 20 balls per week. This film shows the football-making process, from bleaching the leather to sewing it together in panels.

Scottish Football Museum

## Football Factory

British Pathé, 1946  
Duration 2:03  
Courtesy of British Pathé

## **Superball patent**

Romano Polo, Antonia Tossolini, Juan Valbonesi, 1931

Patented in 1931 in Argentina by Romano Polo, Antonio Tossolini and Juan Valbonesi, the Superball was the first football without a large leather seam and inflated using a small air-valve. The absence of leather laces improved the design as it meant that the ball was less painful to head. This led to it being universally adopted.

Courtesy of Instituto Nacional de la Propiedad Industrial,  
Argentina

## **Superball advert**

1931

## **Pivot Rubstud**

Pivot, 1950s

Until the mid 1950s, studs were individually nailed into the soles of football boots. This posed a risk to the wearer and to other players, as the nail could protrude through either side of the sole and cause injury. These rubber studs, invented in the 1950s, were claimed to be safer for players because they introduced an extra layer of rubber to create a buffer between the nail and the foot.

National Football Museum

## **Boots, thought to have been worn by Stanley Matthews**

1950s

In the 1930s, a lower-cut boot emerged in southern Europe and South America. It was an important design innovation. Different styles of play, including dribbling and elaborate footwork, had developed in these warmer climates, where football was played on drier, harder pitches with less mud. This so-called ‘Continental’ style boot was popularised in the UK in the 1950s by celebrated England footballer Stanley Matthews. In collaboration with the Co-operative Wholesale Society, he designed a pair for the mass market that offered flexible, lightweight soles and free ankle movement.

National Football Museum, on loan from Alan Wright

## Advert for Stanley Matthews football boots

1950s

Courtesy of Co-Operative Group

## George Best's first pair of football boots

c.1960

Considered one of the sport's finest players, Northern Irish footballer George Best was given these boots when he joined his first youth team, Cregagh Boys. On the sides in white paint, he recorded details of the games in which he scored goals. Best took the boots with him when he joined Manchester United in 1961.

National Football Museum, on loan from Mark Briere-Edney

## Puma Super-ATOM, replica

Puma, Designed 1952, produced 1996

The late 1940s was a time of unprecedented innovation in football equipment, which was in great part down to German siblings Adolf and Rudolf Dassler. They first manufactured footwear together as Gebrüder Dassler Schuhfabrik, but split in the late 1940s, with Rudolf forming Puma and Adolf forming adidas. Puma released the revolutionary Super-Atom, thought to be the first boot with screw-in studs. Designed in collaboration with West Germany's national coach, Josef Herberger, it was initially available only to players in the top division of Germany's national league, the Bundesliga.

PUMA Archive

## Puma trade catalogue

Puma, 1957

Puma began producing a variety of screw-in studs in the 1950s, using materials such as leather, nylon and rubber to suit different playing surfaces. The design of football equipment was no longer simply concerned with protecting the body. It was becoming more geared towards greater agility and improved performance.

Courtesy of PUMA Archive

## Puma 1958 FIFA World Cup™ advert

Puma, 1958

Courtesy of PUMA Archive

## Puma ‘formstrip’ patent

Puma, 1959

Puma’s ‘formstrip’, now one of the brand’s integral graphic design elements, was originally created to add support and structure to the side of a shoe, while keeping it lightweight. The design was patented in 1959. That same year, Puma was the boot of choice for the Brazilian team, who then won the World Cup.

Courtesy of PUMA Archive

## adidas Argentinia, replica

adidas, Designed 1954, produced 2003

Like Puma, adidas was instrumental in setting new standards for elite football equipment. This boot was worn by the West German team at the 1954 FIFA World Cup in Bern, Switzerland. The screw-in studs could be adjusted in length, giving the players the advantage of greater ball control and running speed on a wet pitch. When the underdogs of the tournament, West Germany, beat the favourites, Hungary, in the final, the match became known as the ‘Miracle of Bern’.

The adidas Archive

## Geoff Hurst’s adidas Diamant boots, worn at the 1966 FIFA World Cup™ final, dipped in bronze

adidas, 1966

1966 became a landmark year in British sporting history when England won the FIFA World Cup. In the final against West Germany, 22 players wore adidas boots. Geoff Hurst scored a now-famous hat-trick for England, wearing adidas Diamant boots.

The adidas Archive

## Players wearing adidas boots at the 1966 FIFA World Cup™ final

1966

Courtesy of The adidas Archive

## Puma KING Pelé

Puma, 1972

Launched in 1968, the Puma King was designed in honour of Mozambican-born Portuguese player Eusébio da Silva Ferreira. A boot featuring a flexible sole and lightweight nylon screw studs, the King has been in production for more than 50 years. It has been worn by some of history's greatest players, including Argentina's Diego Maradona and the Netherlands' Johan Cruyff. Brazilian legend Edson Arantes do Nascimento, better known as Pelé, wore a bespoke version with a yellow 'formstrip' for his fourth FIFA World Cup in 1970.

PUMA Archive

## Puma King Pelé advert

Puma, 1971

Courtesy of PUMA Archive

## adidas Telstar

adidas, 1974

Comprising 32 panels of white hexagons and black pentagons, the Telstar design has become the archetype for modern footballs. The idea of designing a ball in this form came from Danish goalkeeper Eiil Nielsen. The ball was named after a US communications satellite, with the design and colours intended to make the ball easily visible on television. It was used for the first time during the 1970 FIFA World Cup, having been commissioned by FIFA as the official match ball.

National Football Museum

## Alan Ball, England V Scotland

Peter Robinson, 1971

Up until 1970, football boots were usually black or brown. One of the first white pairs seen on the pitch were worn by the youngest member of England's 1966 FIFA World Cup winning team: Alan Ball. Danish brand Hummel paid him to wear their new white model, but Ball preferred the comfort of his adidas boots, so he simply painted them white. To his embarrassment, the paint washed off on to the pitch when it rained. After this, designers began to experiment with different coloured boots.

Courtesy of PA Images/Alamy Stock Photo

## **adidas Copa Mundial, replica**

adidas, Designed 1979, produced 1993

An iconic boot of the 1980s, worn by many great players, the Copa Mundial remains in production and largely unchanged today. The boot's name is Spanish for 'World Cup', as it was released for the 1982 tournament in Spain. It features a fold-over tongue, a relatively heavy soleplate with 12 conical studs, and a lightweight kangaroo-leather upper.

The adidas Archive

## **adidas Azteca**

adidas, 1986

The Azteca was the official match ball of the 1986 FIFA World Cup in Mexico and the first to be fully synthetic and polyurethane-coated. The use of synthetic materials increased the ball's durability and minimised its absorption of water. It performed well in wet conditions, at high altitudes and on hard ground. The design was inspired by the tournament's host nation, with a pattern making reference to Aztec architecture.

National Football Museum

## **Matthias Sammer's customised football boots**

adidas, 1994

The 1990s saw the start of player endorsement by major sports brands. German footballer Matthias Sammer was under a deal with adidas for the 1994/95 season, but his club, Borussia Dortmund, was sponsored by the competing brand Nike. Sammer insisted on playing in his own shoes and covered the adidas trademark three stripes with a handmade Nike logo. A player's association with certain boot brands and models continues to have the power — as their fame increases — to drive billions of pounds worth of sales.

German Football Museum, Dortmund

## Zinedine Zidane's adidas Predator Pulse

adidas, 2004

The 1990s signalled another wave of design innovation, involving the use of new materials. Based on a prototype designed by former Liverpool player Craig Johnston, the Predator featured rubber panels on the upper. These are intended to increase friction between the boot and ball, improving control, swerve and accuracy. Compared to earlier boots, such as the Copa Mundial, the Predator's soleplate is lighter and more flexible, allowing for greater movement. Many generations of this boot's silhouette have since been released, including the Accelerator, Precision and Touch.

Steven Lin

## adidas Predator campaign

adidas, 1994/95

Courtesy of The adidas Archive

## Production process of the adidas Jabulani 2010 FIFA World Cup™ match ball

2010

Duration 4:18

## Nike Mercurial

Nike, 1998

Designed by Christian Tresser, the Mercurial boot was made specifically for Brazilian player Ronaldo Luís Nazário de Lima, with an emphasis on speed. For the first time, the upper was constructed from a synthetic leather called KNG-100, which allowed a sticky coating normally used on racing motorcycles to be applied to the upper for increased ball control. A thin soleplate meant the model weighed just 250g, half the average weight of a boot. Ronaldo first wore the boots at the 1998 FIFA World Cup, and the model has continued to evolve to this day.

Nike

## Mia Hamm wearing Nike Air Zoom M9 FG boots at the 1999 FIFA Women's World Cup™

Paul Sutton, 1999

This was Nike's first football boot designed specifically for women. It was endorsed by US footballer Mia Hamm and worn by her during the USA's victory at the 1999 FIFA Women's World Cup. Women's football has existed for almost as long as men's, attracting large crowds in Britain during the First World War (1914–18), with star players such as Lily Parr, who played for the Dick, Kerr Ladies. However, it was banned in 1921, when the FA decided the game was 'quite unsuitable for females'. The ban lasted until 1971.

Courtesy of PCN Photography / Alamy Stock Photo

## Nike Total 90 Aerow II Hi Vis

Nike, 2006

The three-ringed graphic on this ball allows players to see the spin more clearly as it glides through the air, and the bright-yellow colour aids visibility in fog and snow. This was the first time a winter version of a Premier League ball was used. No doubt its visibility on television played a part in its adoption, as viewing figures had been growing since the formation of the Premier League in 1992.

Nike

## adidas +Teamgeist Berlin

adidas, 2006

This ball is made of just 14 panels instead of the traditional 32, reducing the number of seams by 60%. The panels were thermally bonded rather than stitched. Both factors give the ball a rounder exterior, allowing players to have greater accuracy and control.

The adidas Archive

## adidas Jabulani

adidas, 2010

Launched at the 2010 FIFA World Cup in South Africa, the Jabulani ball was developed in partnership with researchers at Loughborough University to be more aerodynamic. It is made of just eight thermally bonded 3-D synthetic panels and features a 'grip and groove' surface for better boot contact. Players found the ball's movement unpredictable, however, so it was not used for subsequent tournaments.

National Football Museum

## Turf

Football boots are designed in relation to their playing surface, and as new technologies and materials have been developed, the pitch itself has become highly technical and engineered. The illusion of naturally occurring, perfectly green turf seen in stadiums is produced and maintained by a small army of experts. Today, there are three main styles of turf: natural, artificial and hybrid. Hybrid pitches are predominantly used by professional footballers and has had an impact on the game itself, making it faster while minimising the risk of injury.

1 Cross-section of hybrid turf

Natural Grass, 2021

Courtesy of Natural Grass

2 Journey from turf farm to stadium

Natural Grass, 2016

Courtesy of Natural Grass

Duration 01:13

3 Sample of 3G turf

Labosport, 2022

Labosport

## adidas Ace 16+ Purecontrol SG Primeknit

adidas, 2016

This boot is completely laceless, designed to offer a larger surface area to create the cleanest possible strike. The upper is constructed from a single knitted textile using Primeknit technology, forming a sock around the foot. As football is played at a faster speed than ever before, on near perfect pitches, there is less demand for boots to play a protective role.

The adidas Archive

## 5-a-side

Football has been adapted into a Paralympic sport. 5-a-side football — also known as blind football — is for visually impaired athletes, while 7-a-side football is for players with cerebral palsy. This version of 5-a-side is played on a 20m x 40m pitch (around 66ft x 131ft), and outfield players must wear blindfolds and eye patches for fairness. The ball has been designed to contain small ball bearings that rattle, helping players to locate it on the pitch.

From top

Handi Life Blue Flame ball

Handi Life, 2021

Design Museum

5-a-side match play

Actionplus, 2012

Courtesy of Action Plus Sports Image/Alamy Stock Photo

## Star players

As football has become a professionalised form of mass entertainment, sports brands have recognised its potential for sponsorship and celebrity endorsement. Top players are contracted to wear certain products, despite their personal preferences. These boots, worn by star players for Barcelona, have become collector's items.

1 Xavier ('Xavi') Hernández Creus's match-worn boots  
adidas, 2009

2 Andrés Iniesta Luján's match-worn boots  
Nike, 2009

3 Lionel Andrés Messi's match-worn boots  
adidas, 2009

All private collection, Barcelona

Nike Flight

Nike, 2020

The Flight is the product of eight years of research and testing, with Nike claiming the ball has a 30% 'truer flight'. As a ball moves through space, air grips its surface, slowing it down and causing changes in direction. This football consists of only four panels and is covered in an aerodynamic geometric pattern of grooves called AerowSculpt.

Nike

## Boots for women

Gender biases in society mean women's football has historically been either neglected or banned completely. Men and women have different physical requirements, and a lack of tailored designs in football equipment has been a factor hindering fair participation in the sport. Dedicated brands are now focusing exclusively on women's football. Australia's Ida Sports has spent several years developing a boot for women, with a narrower heel, wider forefoot and higher arch. This early prototype was tested and refined using feedback from players.

From top

The Ida Classica  
Ida Sports, 2020  
Ida Sports

'Frankenshoe' prototype  
Ida Sports, 2018  
Ida Sports

## Inside adidas

In this series, British artist Alastair Philip Wiper documents how new materials and concepts are tested by machines in the research department at the adidas headquarters in Herzogenaurach, Germany. His images also provide a portal into the factories that produce tens of thousands of products a day.

Alastair Philip Wiper, 2017

From left

Endurance tests, adidas factory, Indonesia

Testing football boots, adidas' Future Sports Science Lab

adidas shoes in a lasting machine

Part of a machine that produces adidas shoes

adidas Copa Mundial, prototyping department

A deconstructed adidas Copa Mundial football boot

adidas shoe lasts in the prototyping department

Courtesy of Alastair Philip Wiper

## Technical fabrics

The fabric and cut of football kits is constantly adapted to afford players increased speed and comfort. This selection of England shirts demonstrates the advances in material technologies and manufacturing techniques. With the rise of synthetic fabrics such as elastane, shirt design has focused on breathability and sweat-wicking, to regulate body temperature.

- 1 England 1950 FIFA World Cup™ shirt, worn by Len Shackleton  
St. Blaize, c.1950  
National Football Museum
- 2 England 1966 FIFA World Cup™ shirt, issued to George Eastham  
Umbro, 1966  
National Football Museum
- 3 England 1982 FIFA World Cup™ shirt, belonging to Bryan Robson  
Admiral, 1980–82  
Manchester United Museum
- 4 England 2020 national shirt  
Nike, 2020  
Nike

## Shinpads

Football can be a dangerous sport, so various pieces of protective equipment have been designed to prevent injury. Originating in cricket, shinpads were first introduced to football in 1874, when it was customary to wear them outside the socks. They were made from leather and stuffed with animal hair for padding. Shinpads started to be worn under socks in the 1900s and have become smaller over time as players prioritised speed and agility over personal protection.

1 Famous English Football Players, print from The Boy's Own Paper

1881

2 Shinpads

1890s

3 Shinpads

c.1890

All National Football Museum

## Nike Mercurial Flylite SuperLock shin guards

Nike, 2019

Boots, balls and shinpads have all evolved to become lighter. These pads are extremely lightweight, with the cushioning provided by a thin rubber 'web' on the inside. Their surface is covered in small spikes that pierce the sock, keeping them in place.

Nike

## Hungarian National Team goalkeeping gloves

1962

Today considered an essential piece of equipment, goalkeeping gloves are a surprisingly recent invention. They started to be worn on a global scale in the 1970s, once their role offering personal protection and greater grip was recognised. A design similar to this pair was worn by Amadeo Carrizo, goalkeeper for Argentina's River Plate, who was thought to be the first player to wear gloves.

Fondazione Museo del Calcio

## Goalkeeper gloves

German ski-glove manufacturer Reusch has played an important part in developing goalkeeping gloves into a key piece of equipment. Their first pair was created in collaboration with Sepp Maier, goalkeeper for Germany's national team, and based on a rubber surgical glove. Over the years, the brand has experimented and developed multiple types of palm padding that increase grip and durability.

1 Reusch Bundesliga  
Reusch, 1985

2 Reusch material catalogue  
Reusch, 1978

3 Reusch Attrakt Fusion Guardian  
Reusch, 2021

All Reusch

## Sports bras

Specially designed bras are a necessary protective garment for women to wear during sport. This is especially true for football, where athletes can be subjected to repeated blows to the chest. The first dedicated sports bra was invented for jogging in 1978 by Lisa Lindahl, Polly Smith and Hinda Schreiber. Today, sports bras are still a developing area of study, with leading sportswear brands making efforts to design comfortable yet supportive models.

From left

Jogbra patent  
Lisa Lindahl, Hinda Schreiber, Polly Smith, 1979

Nike FE/NOM Flyknit bra  
Nike, 2019  
Nike

## Nike Pro hijab

Nike, 2017

In 2017, Nike developed a single-layer stretchy hijab suitable for elite athletes. It was designed to help make sport more inclusive and accessible for Muslim women. In cultures and countries where barriers exist between exercise and religion, designs such as this can help to inspire and empower more women to participate. In 2007, FIFA enforced a ban on headwear on the basis that the risk of injury was too high. After mounting pressure and campaigning, the ban was eventually lifted in 2014.

Nike

## Edgar Davids, Holland V Juventus

Allstar Picture Library, 2000

Bespoke equipment is often developed for a player's specific needs. These goggles were designed for Dutch-Surinamese footballer Edgar Davids in 1999. Davids suffered from glaucoma, an eye disease affecting the optic nerve that restricted his vision. He wore these protective goggles while continuing to play professionally after having eye surgery.

Courtesy of Allstar Picture Library Ltd/Alamy Stock Photo

## Trainer's Gladstone bag

Early 1900s

Sports medicine and sports science have now become highly specialised fields of research that are central to elite performance. In the early 1900s, football physiotherapists and trainers carried this type of bag, equipped with smelling salts and a wet sponge to treat a range of injuries.

National Football Museum

## Arsenal trainer Tom Whittaker in his state-of-the-art medical room

H F Davis, 1938

Courtesy of H F Davis/Topical Press Agency/Getty Images

## X-rays of a footballer's knee joints

Late 1900s

Knee damage is among the most frequent and severe types of injury to affect professional footballers. In 1960, it took Scottish player Willie Cunningham six months to regain match fitness when he had to have pieces of knee cartilage removed after an injury. Medical and scientific developments since then mean that today's players can have keyhole surgery to repair damaged cartilage, allowing for the possibility of full recovery in as little as four weeks.

National Football Museum

## The referee

Unique pieces of technical equipment have been designed to help the referee monitor the rules of the game. This important figure in football became a standard presence at matches in 1881. The red and yellow card system was adopted into the rules of the game in the 1970s, after English referee Ken Aston had the idea while waiting at a traffic light.

- 1 How to Referee  
William Pickford, 1906  
National Football Museum
- 2 Linesman's flag  
1906  
National Football Museum
- 3 FIFA referee badge  
1980s  
National Football Museum, on loan from John Basford Meachin
- 4 Referee's tools for fixing and checking studs  
1980s  
National Football Museum, on loan from John Basford Meachin

## Video Assistant Referee (VAR)

Despite some initial controversy, video technology has changed the way football games are refereed. First used in 2016, VAR is now present in all major men's domestic and international league games. A team of three referees outside the field of play use video-replay technology to review potentially match-changing decisions made by the on-field referee.

Courtesy of Robert Hoetink and Mark Pain/Alamy Stock Photo

## The referee whistle

The humble whistle is one of the referee's fundamental tools. In 1884, Birmingham toolmaker Joseph Hudson invented the first sports whistle, the Acme Thunderer, which is still in production today. It was the world's first 'pea' whistle, where a small piece of cork is inserted inside the whistle to make the sound more distinguishable, and its snail shape is ideal for holding in the hand. Acme's Tornado is the world's loudest whistle.

- 1    Acme Thunderer, world's first sports whistle  
Acme, 1886
- 2    Acme UEFA European Championship whistle  
Acme, 1996
- 3    Acme Tornado  
Acme, 2000
- 4    Brass construction component for the Acme Thunderer  
Acme, 2022
- 5    Advert for Acme whistles  
Acme, 1909

All Acme Whistles

## Jack Taylor's 1974 FIFA World Cup™ whistle

Acme, 1974

This Acme Thunderer was used during the 1974 FIFA World Cup final between Holland and West Germany. It was blown to signal the award of a penalty kick after just one minute of play. This was the first penalty ever to be given in a World Cup final.

German Football Museum, Dortmund

## The body

The footballer's body is an important piece of equipment that can be adapted to enhance performance. Specialised and stringent regimes are designed for training, recovery, sleep, diet and cognitive skills, and are personalised to each player. These regimes are continually being researched and refined in an effort to design the perfect athlete's body for match success. In the technological age, when players are considered expensive assets, there is a race to gather and analyse as much data as possible. To maximise the effectiveness of each player, coaches and managers aim to fine-tune team performance with tactics and formations.

## Training equipment

These early examples of training equipment were used to build strength, agility and balance. Today, a player's training will focus more on speed and endurance, and include exercises that target specific muscles, movements and skills used on the pitch.

Medicine ball

1800s

National Football Museum

Millwall FC, J Pipe and S Tyler training with skittles

1930s

Courtesy of Mirrorpix

## Apex GPS vest, used by England Men's National Team

STATsports Group, 2021

These smart vests, worn throughout training and even during games, hold a GPS tracking device that collects metrics such as total distance, speed, heat maps and pose information. This is used to better understand where individual players need to improve and how injury can be mitigated. The data collected is owned by the club rather than the player, posing questions around privacy rights.

The Football Association

## Visionup Athlete glasses

Visionup Co. Ltd, 2015

The quality of the connection between the eyes, brain and body has an impact on how fast a player can react to visual signals. Elite athletes train to strengthen brain functionality and improve reaction times. The flashing lenses in these glasses limit the amount of visual information perceived by the wearer, encouraging greater concentration and boosting peripheral vision.

Visionup Co. Ltd

## Football Association coaching sheets

Football Association, 1940s

The principles of coaching were formalised in the late 1930s, and Walter Winterbottom, first manager of the England football team and FA Director of Coaching, was an important figure in popularising it in England. These are just some examples of coaching sheets produced by the FA that were distributed to schools. They show how players learned specific sets of moves, in contrast to today when the focus is on more personalised tactics.

Alexander Jackson

## 2014 FIFA World Cup™ German team tactics

Hansi Flick, 2014

In 1950, Charles Reep invented football analysis. This continues to inform tactics, which range from the way a single player moves, to the pace, positioning and movement of the entire team. These sheets, used by the most expensive team in World Cup history, show the degree of detail used in preparation for matches, down to knowledge about the preferred shooting foot of opposition players.

German Football Museum, Dortmund

## Diet

Elite footballers today are expected to play more than 70 games in a season, perform at their peak twice a week, and improve incrementally. Scientific and medical research shows that, aside from physical training, other behavioural changes are equally necessary. Diet and nutrition has become one of the most important aspects of a training regime, with ratios of carbohydrate, protein and fat consumption meticulously prescribed.

- 1 Food Formations: Eat Like the Pride  
FATV, 2020  
Duration 2:13
- 2 Fuel profile for men's senior team  
2020
- 3 Energy gel pouch  
Science in Sport, 2021

All The Football Association

## Bukayo Saka, England training camp, Euro 2020

Eddie Keogh, 2020

Although this looks like English footballer Bukayo Saka relaxing and celebrating at a pool party, it is actually part of a professional athlete's enforced regime of post-match rehabilitation and restoration. Until recently, players would be made to walk up and down swimming pools to increase blood flow and keep their muscles moving. Incorporating inflatables like this turns a necessary routine into an enjoyable task.

Courtesy of Eddie Keogh and the FA/Getty Images

## Recovery

Scientific and medical research has revolutionised the way we think about rest, recovery and rehabilitation. They are now seen as vitally important for elite athletes, above all in order to prevent injuries. Design is playing a role in making these processes quicker, easier and more enjoyable. The intensity and frequency of play results in immediate muscle damage and inflammation. This can be countered in the first 24 hours after play by restricting blood flow, using technology and immersion in ice. Then, 36 hours after a match, increased blood flow is encouraged by activities such as swimming.

From left

Custom ice-pack shorts  
Nike with GlacierTek, 2021  
The Football Association

AirBands Wireless Blood Flow Restriction Cuffs  
VALD Performance, 2020  
VALD

## Clip from Saturday Fever

The Rank Organisation, 1961

Duration 1:00

Courtesy of ITV Archive

## The Brittleness of the Player's Body (Die Brüchigkeit der Spielerinnenkörper)

Julia Lazarus, 2011

HD video loop

Duration 9:20

German artist Julia Lazarus observes the almost hypnotic monotony of a routine training session for top-level athletes, in this case the German women's national team. The camera captures the tension between personal motivation and team performance, as the mass of individual bodies move together in unison.

Courtesy of Julia Lazarus

# Identity

In organised games of football, it is important for each team to be easily identified. This is as vital for those on the pitch as for those watching a match from a distance. In its simplest form, one team might be dressed in blue and the other in red. But what began as a practical solution has evolved into an incredibly rich and diverse world of football graphics.

Clubs and fans have found creative ways of using visual markers to express themselves and their communities. This began with the team kit — its colours and crest. Official merchandise is an important commercial driver within the football industry and is subject to continual innovation. Many fans do not identify with these official outputs though, and prefer to create their own alternative club graphics. Varying in scale from vast banners to fanzines, their works demonstrate the active role of football fans in the visual culture of the sport, as well as expressing their knowledge, commitment and humour.

## **Women's cap**

1895

National Football Museum

## **The crest**

The club crest — known as a badge when attached to clothing — is an emblem unique to each football club. In the early days of football, crests had a distinct practical purpose. Clubs did not provide official kits, which meant players wore their own clothes. Sewing a crest on to a shirt was a quick and inexpensive way of creating a uniform, while more elaborate crests could be used to distinguish officials or team members who also played on the national team. Today, the crest is a symbol with which players and fans alike can identify.

Football Association badges

1898–1905

National Football Museum

## Early badges

Football badges were first worn at the first international match in 1872, a goalless game between England and Scotland. England adopted the three lions as its crest, a symbol that dates to the reign of King Richard I, who used it for his Royal Seal of 1198. The Scottish team wore a badge showing the lion rampant, a symbol from the Royal Banner of Scotland that has symbolised the Kingdom of Scotland since 1222.

From top

England shirt badge, reputedly awarded to Gilbert Oswald Smith  
1890s  
National Football Museum

Scottish international badge  
1877  
Scottish Football Museum, on loan from Queen's Park Football Club

## Glasgow Rangers Scottish Cup Final team of 1876/77

1876

Football crests were initially very simple in design and often drawn from the house symbols of elite British public schools. Crescents, stars, arrows, crosses, hearts, and even skulls and crossbones were popular choices. They were easily recognisable from a distance and could be made and sewn on to shirts without difficulty.

Courtesy of CSG CIC Glasgow Museums and Libraries  
Collection: The Mitchell Library, Special Collections

## Pin badges from English football clubs

c.1980–2000

In the late 1800s, crests became more elaborate as clubs sought to establish their credibility and reputation. Many assumed their town or city coat of arms, creating a sense of history and belonging. Local industry and buildings were also common sources of inspiration, and they continue to act as symbols for clubs today, even when the landmarks no longer exist.

Colin Purdew

## Pin badges, women's teams

c.1970s–2000s

National Football Museum

### Development of the Newcastle United crest

1890s–present

Crests are continually being reimagined. New designs are sometimes produced to reflect a club's recent successes or to celebrate an important anniversary. More often, redesigns reflect a change in management or club ownership, reflecting changing priorities in how they want the club to be perceived, as well as the latest trends in graphic design.

Courtesy of Newcastle United

### Development of the Juventus logo

1905–2020

Courtesy of Juventus

## Selection of crests from members of CONIFA

Various dates

Crests can be an important means of expression for marginalised groups. CONIFA, the Confederation of Independent Football Associations, represents unofficial states that are not permitted to compete in the FIFA World Cup. It supports international football teams from unrecognised nations, regions, minority groups and isolated territories, allowing them to meet and compete against each other. CONIFA currently has 60 members, including Sápmi, Tibet and Abkhazia.

Courtesy of CONIFA and its affiliated members

### Protests outside Hull City ground

Nigel French, 2018

The redesign of crests can cause controversy. In recent years, many clubs have been acquired by foreign investors without cultural ties to the club or its community. These investors often seek to adapt the crest to make it more appealing to international audiences. These changes can be seen as tangible evidence of money taking precedence over heritage and are often bitterly disputed.

Courtesy of PA Images/Alamy Stock Photo

## Cardiff City crests: 2010, 2012 and 2015

2010–15

In 2012, Malaysian billionaire Vincent Tan rescued Cardiff City from near bankruptcy by announcing that he would invest £100 million into the club. This was on the condition that the team changed its home kit from blue to red, a more appealing colour for Asian fans. The crest was redesigned to feature a red dragon, but this unpopular decision was revoked in 2015.

Design Museum

## ‘Wear all going to Wembley’ fanzine

1994

While the crest is given almost sacred status by fans, it can also become an object of ridicule. Opposing fans find playful ways to manipulate the symbols of their rivals, while home fans may attack their own crest as a way to vent anger or frustration at a team’s poor performance.

Design Museum

## GIRLFANS

GIRLFANS is an ongoing photography project that aims to capture the female fan experience and give more visibility to female football supporters. Created by Jacqui McAssey in 2013, the project includes five distinct portrait series, each capturing the fans of a different UK club. Portraits are distributed in a traditional football fanzine format.

From left

Liverpool Supporter, GIRLFANS Zine, Issue 1, Anfield  
Jacqui McAssey, 2013  
Courtesy of Jacqui McAssey

Olive, GIRLFANS Zine, Issue 1, Anfield  
Alex Hurst, 2013  
Courtesy of Alex Hurst

## Child's mascot shirt, Sheffield Wednesday

1960s

Mascots are another important football symbol. They act as a playful representation of the team and are thought to bring good luck. Mascots are often based on a team's nickname and can take the form of an animal or a fictional local personality.

National Football Museum

Millwall captain, Len Graham, fails to hide his amusement as he leads his team out at the Den and Zampa the Lion falls over

H F Davis, 1927

Courtesy of H F Davis/Getty Images

## The kit

The kit is the most important visual element in football. Practically, it allows players to be easily recognised on the pitch. Emotionally, it symbolises the team, individual players or specific moments in footballing history.

Since the 1970s, kits have become uniforms for fans as well as for players, allowing them to show their allegiance. They also provide an important commercial opportunity. Top clubs sell millions of replica shirts every year, releasing new collectable designs each season. Kit designs are hotly debated. It is hard to say what makes a good one, yet they can be understood in terms of three basic elements: colour, pattern and lettering.

Early football kits were sourced by the players themselves. They often consisted of everyday garments in specific colours or patterns, such as striped shirts or shorts, and colourful socks and caps.

## Harrow Footers team

1871  
National Football Museum

## Pitt Street Revue V Portsmouth Ladies

1916  
National Football Museum

## Colour

Colour is the starting point for all kit design. Each club is associated with a set of colours to be used across the home, away and reserve kit. In early games, colour clashes were common. This led to all Football League clubs being made to register their colours in 1891, a practice that continues to this day. If an away team's kit is the same colour as the opposition's home kit, the visitors must wear their reserve kit. Red and blue are by far the most popular choices, as they are easily visible and have strong symbolic connotations, but white, yellow and black are also popular.

From left

Manchester United Women Home, worn by Millie Turner  
adidas, 2018  
Manchester United Museum

Manchester City Women's Home, worn by Lucy Bronze  
Puma, 2020  
Courtesy of Lucy Bronze and Manchester City Women

## The goalkeeper

All players in a football team wear the same kit apart from the goalkeeper. Goalies are the only players allowed to touch the ball with their hands, so they need to be easily distinguished from other players. Until the 1970s, UK goalkeepers were only allowed to play in green, blue, scarlet or white for domestic games. Green was preferred, as few teams wore this colour as their main kit.

From left

'Approved colours for goalkeepers', extract from Football Association rulebook  
The Football Association, c.1920  
Courtesy of The Football Association

Goalkeeper's jumper, worn by Hugh Turner, Huddersfield Town  
1930  
National Football Museum, on loan from The Neville Evans Collection

## Designs for a new Brazil national kit

Aldyr Garcia Schlee, 1953

In 1950, Brazil suffered a humiliating loss to Uruguay in the World Cup final while wearing their traditional all-white kit. It was subsequently deemed unlucky, and a national competition was launched to find a replacement colour. The winner of the competition was 18-year-old newspaper illustrator Aldyr Garcia Schlee. Living in a small community on the Uruguayan–Brazilian border, Schlee was intrigued by the competition's only stipulation: that the kit include all four colours of the Brazilian national flag. Most kits include a maximum of three colours, and he had to rise to the challenge of creating a harmonious design that met this criterion.

Courtesy of Acervo Aldyr Garcia Schlee

## Pelé's shirt from the 1958 FIFA World Cup™

Umbro, 1958

For international matches, kit colours are chosen to communicate a team's national identity. The most famous kit is the gold of the Brazilian national team. A symbol of flair, innate talent and creativity, the Brazilian national kit has been worn by some of football's greatest players. It was worn by Pelé during the 1958 FIFA World Cup, when he was just 17 years old. He scored two of Brazil's five goals against Sweden in the final, marking the beginning of his career as an international footballing star.

National Football Museum, on loan from The Neville Evans Collection

## Umbrochure, 1950/51

Umbro, 1950

Many kit designs have basic templates. These range from simple stripes, sashes or quarters to more complex patterns and detailing. Clubs simply need to choose a template and add their own colours to create a bespoke design. Manchester kit manufacturer Umbro was an early champion of templates, offering a variety of designs in their Umbrochure since 1935.

Design Museum

## Pattern

Early pattern designs were limited by the manufacturing options available, as it was not possible to weave or print complex designs. This led to several clubs wearing the same kit, as with the bold black and white stripes of Notts County and Newcastle United, now commonly associated with the Italian team Juventus. This design is worn by more than 160 league teams worldwide and was once the kit for the pioneering women's team Dick, Kerr Ladies, named after the factory for which they worked.

Dick, Kerr Ladies football team

1920s

National Football Museum

Giacomo Mari's Juventus shirt

1950–51

National Football Museum, on loan from The Neville Evans Collection

## England Women's National Team Away

Nike, 2019

Patterns today are increasingly complex and subtle. This kit, designed for the England Women's team for the 2019 FIFA World Cup, features a discreet pattern of roses inspired by those found on the Football Association's crest. It was designed in consultation with the players and was the first iteration of a women's kit that was not based on an existing design for the men's team.

Nike

## Number 10

The number 10 is traditionally worn by a team's primary playmaker or an attacking midfielder. Playing between the midfield and the forward line, the number 10 makes links across the field of play and creates chances for their teammates. Some of the greatest players in the history of the game have worn the number 10, giving it a prestige that few other numbers have.

- 1 Diego Maradona, match-worn shirt from 1979 international friendly  
adidas, 1979  
FIFA Museum
- 2 Michel Platini, match-worn shirt from 1984 UEFA European Football Championship  
adidas, 1984  
FIFA Museum

- 3 Zico, match-worn shirt from 1986 FIFA World Cup™  
Topper, 1986  
FIFA Museum
- 4 Roberto Baggio, match-worn shirt from 1994 international friendly, Italy V Finland  
Diadora, 1994  
Fondazione Museo del Calcio
- 5 Michelle Akers, match-worn shirt from 1999 international friendly, USA V China  
Nike, 1999  
National Football Museum
- 6 Lionel Messi, shirt prepared for 2014 FIFA World Cup™  
adidas, 2014  
FIFA Museum
- 7 Pernille Harder, match-worn shirt, Denmark Women Away  
Hummel, 2019  
Chelsea Football Club

## Numbering

It is difficult to say which team was the first to wear kit numbers, but an early example came in 1928 when both Chelsea and Arsenal wore numbers for their opening Football League matches. The experiment was welcomed by the press because it allowed ‘spectators to give credit for each bit of good work to the correct individual’. Despite this, the use of numbers was not adopted by the Football Association until 1939.

Arsenal take part in numbered shirts experiment

H F Davis, 1933

Courtesy of H F Davis/Topical Press Agency/Getty Images

## Gabriel Barbosa, Boavista V Flamengo

Dhavid Normando, 2020

Today, certain numbers hold symbolic value in football, giving players an opportunity to express themselves. In Brazil, the number 24 is often associated with being gay, thanks to a popular game in which the number represents a deer, an animal pejoratively associated with gay men. Consequently, few Brazilian players wear the number for fear of homophobic abuse. In 2020, Flamengo’s Gabriel Barbosa wore the number 24 in a stand against homophobia in Brazilian football.

Courtesy of Dhavid Normando/AFP via Getty Images

## Graphic guidelines from the FIFA legal handbook

FIFA, 2021

In 1979, the Scottish national team added a new dimension to football graphics by including each player’s surname as well as a number on their kit. The practice has since been universally adopted, and lettering has become an important part of kit design. There are strict rules about the size and style of kit lettering to ensure visibility and a sense of uniformity across competitions.

Courtesy of FIFA ©

## Dennis Bergkamp Testimonial, Arsenal v Ajax, Emirates Stadium

Mike Egerton, 2006

Design has not always been a priority for clubs or kit manufacturers. In the 1990s, access to free typefaces on desktop computers led to many clubs opting for standard, open-source fonts for their lettering and numbering. These were ‘stretched’ to better fit on to the rectangular space of the shirt, distorting the letterforms and often resulting in awkward and unattractive designs.

Courtesy of PA Images/Alamy Stock Photo

## **Fenerbahce typeface, 2005–6**

Anthony Barnett for Sporting iD, 2005

Many clubs today regard themselves as brands and use graphic design to establish an identity. Bespoke typefaces are commissioned to reflect the club's history or ambitions, and there is huge variety in the lettering and numbering seen on the pitch. Extensive measures are taken to prevent counterfeiting, as clubs try to prevent unofficial merchandise being sold to fans at lower prices. Numbers and letters conceal logos, ultraviolet markings and watermarks that can only be produced with specialist equipment.

Courtesy of Anthony Barnett

## **Real Madrid typeface, 2011/12**

Anthony Barnett for Sporting iD, 2011

Anthony Barnett designed a huge number of typefaces during his career in football graphics, producing work for Real Madrid, Liverpool, Manchester United, Fenerbahçe and the Italian national team, among others. Though his work is immediately recognisable to many, he remains largely unknown as a designer because sportswear manufacturers do not typically credit individual designers for their work.

Courtesy of Anthony Barnett

## **2010 Africa Cup of Nations typeface, preparatory sketches**

Paul Barnes for Puma, 2010

Paul Barnes is a British designer and typographer responsible for producing some of the most recognisable typefaces in football. Alongside work for the English and Italian national teams, Barnes was commissioned by sportswear brand Puma to produce a shirt typeface for the 2010 Africa Cup of Nations. Inspired by the irregular and characterful hand-painted signs found across the African continent, the typeface was worn on the shirts of Algeria, Cameroon, Côte d'Ivoire and Ghana.

Courtesy of Paul Barnes, Commercial Type

## **Wall with hand painted product logo advertisements, Uganda, Africa**

Alan Gignoux/Alamy Stock Photo

## **Nokia phone mural outside shop, The Gambia**

2007

Tom Gilks/Alamy Stock Photo

## Controversial kits

Although new kits are regularly released, designs are often conservative to please both fans and governing bodies. Two recent exceptions to this trend are the kits worn by Cameroon for the 2002 and 2004 African Cup of Nations. Designed by Puma, the kits sparked controversy and were deemed inappropriate for FIFA tournaments. The sleeveless version broke official regulations as the tournament logo could not be placed on the arm as stipulated, while the all-in-one version did not comply with the rule of having separate shirt and shorts. The one-piece kit led to a fine of 200,000 Swiss francs (around £160,000) for Cameroon, and the design was abandoned.

From top

Cameroon Home, 2002–04  
Puma, 2002  
Classic Football Shirts Museum

Cameroon Home, 2002  
Puma, 2002  
Classic Football Shirts Museum

## Tombez la Chemise

Roderick Buchanan, 2002  
Duration 3:20

This looped video compilation studies the custom of swapping shirts at the end of a game. Using footage from various FIFA World Cup matches, the work captures the strange ritual of removing a garment that has become a national symbol and handing it to a member of the opposing team.

Courtesy of Roderick Buchanan

## Personal messages

Until banned by FIFA in 2014, it was customary for footballers to wear personalised shirts underneath their team kit. These were often revealed to share messages such as tributes to family, friends or supporters, or broader social and political statements. A variation on this custom came in 1999 when Brandi Chastain ripped off her shirt to reveal her sports bra after scoring the winning penalty for the US national team in the FIFA Women's World Cup final. The image became a symbol of confident, female athleticism and a rallying cry for women's participation in football.

- 1 Samir Nasri, Manchester City V Southampton FC  
Allstar Travel, 2012

Courtesy of Allstar Picture Library Ltd/Alamy Stock Photo  
French midfielder Samir Nasri revealed this message while playing for Manchester City. It means 'Blessed Celebration' and is a greeting traditionally shared during the Muslim festivals of Eid al-Fitr and Eid al-Adha.

- 2 Ian Wright, Arsenal V Bolton Wanderers  
Mark Leech, 1997

Courtesy of Mark Leech/Offside  
English player Ian Wright, a prolific goalscorer for Arsenal, marked the moment he broke his club's all-time record with this reveal. It plays on the strapline used in sports brand Nike's advertising.

- 3 Brandi Chastain, USA V China  
Roberto Schmidt, 1999

Courtesy of Roberto Schmidt/AFP via Getty Images

- 4 Tomoaki Makino, FC Köln V Hanover 2011  
Courtesy of IMAGO / DeFodi  
FC Köln's Tomoaki Makino shared this message of support with his countrymen after Japan was hit by the most powerful earthquake it had ever recorded and a resulting tsunami. It reads 'To all who are in the crisis areas, you can do it!'.
- 5 Robbie Fowler, Liverpool V SK Brann  
Laurence Griffiths, 1997  
Courtesy of PA Images/Alamy Stock Photo  
Liverpool striker Robbie Fowler expressed solidarity with Liverpool dockworkers who had lost their jobs following a dispute with the Mersey Docks and Harbour Company. The 'cK' mimics the logo of fashion brand Calvin Klein.
- 6 Didier Drogba, Galatasaray V Elazigspor  
2013  
Courtesy of AP Photo  
Ivorian Didier Drogba paid tribute to former South African president Nelson Mandela, whose popular Xhosa clan-name was Madiba, after he passed away in 2013.

## Replica kits

Football shirts made for fans are known as replica kits. The replica-kit industry was initially targeted at children, with Umbro releasing the ‘Umbroset for Boys’ in 1959. It was the first time that manufacturers actively promoted kits for individuals rather than teams. Although they have become a billion-pound industry, replica kits for adults only became popular in the late 1980s. They are made from lower-grade fabrics than the kits worn by players, and sometimes have smaller numbers and typefaces to further distinguish them from the team shirts.

Advertisement for ‘Umbroset for Boys’  
Umbro, 1970s  
Courtesy of Umbro Ltd

## Leeds United

Kit designs were not initially copyrighted, making it difficult for manufacturers to market replica kits as official merchandise. This changed in 1973, when sportswear manufacturer Admiral struck a deal with Leeds United, paying the club £1,000 to be the exclusive designers and producers of their away kit. The copyrighted kit could only be sold by Admiral, creating an entirely new relationship between clubs and sports brands. By 1977, 84 of the 92 English Football League clubs wore a manufacturer’s logo on their shirts.

From left

Leeds United Home, 1973/74, replica  
Admiral, 2022  
Design Museum

Leeds United team with the Football League  
Championship trophy  
PA Images, 1974  
Courtesy of PA Images/Alamy Stock Photo

In memory of Alex Hetherington  
1990–2022

## The sponsor's logo

Following the introduction of manufacturers' logos on shirts, clubs soon began including those of other sponsors. In 1979, Liverpool was the first English team to carry a shirt sponsor, the Japanese conglomerate Hitachi, with many other clubs following suit. Today, the sponsor's logo has become a standard element of kit design, with certain logos even gaining cult status.

West Ham Home 1999/2000

FILA, 1999

Classic Football Shirts Museum

Fiorentina Home 1998/99

FILA, 1998

Classic Football Shirts Museum

## Champions League Koulikoro

Émile-Samory Fofana, 2018–20

This series of portraits by Franco-Malian photographer Émile-Samory Fofana captures the global influence of major football leagues by documenting the worldwide prevalence of replica kits. In the photographer's words, 'When the jersey of an Argentinian midfielder, playing in the British Premier League, in a club sponsored by a United Arab Emirates airline, designed by an American kit supplier and produced in China, is worn by an 11-year-old boy in Mali, it becomes a matter of geopolitics. Football mirrors the world's patterns.'

Courtesy of Émile- Samory Fofana

## 1980s 'casuals' outfit

Neil Primett (Diadora Borg Elite white/gold trainers, 1981)  
Anthony Quirke (Fila Settanta MK1 tracksuit top, 1976 and Sergio Tacchini polo shirt, 1976)

Football fans sometimes create their own uniforms beyond replica kits. An example of this is the 'casuals' of the late 1970s and 1980s, a British subcultural movement that saw young fans dress in luxury European sportswear. The look allowed fans to express and share an identity, making clothing an important part of football culture. Items were sourced while fans travelled to Europe to watch their teams play in away games, with popular brands including adidas, Sergio Tacchini, Fila and Diadora.

Design Museum (Lois jeans)

## Group of 'casuals'

1980s

Courtesy of Jake Payne

## The End

'Casuals' culture was well documented in Liverpool-based fanzine 'The End'. Co-founder Peter Hooton (lead vocalist for Liverpool band the Farm) was inspired by other satirical anarchist zines of the early 1980s. Running from 1981 to 1988, 'The End' featured political cartoons and observational humour, as well as interviews with prominent musicians such as the Clash and the Undertones.

From top

Joe Wag illustration from 'The End'

Peter Hooton, 1982

Peter Hooton

'Ins and Outs' from 'The End'

Peter Hooton, 1981

Peter Hooton

## Martine Rose Autumn/Winter 2019

2019

'Casuals' culture remains a source of inspiration for fashion designers today. Martine Rose is a London-based fashion designer who often looks to football fandom and specifically draws on 1980s terrace aesthetics. In her AW19 collection, the movement of players on the pitch is reflected in how the garments are sewn, and the masculinity of the sport is subverted by subtle uses of colour and embellishment.

Martine Rose

## Fan graphics

The tremendous amount of official merchandise produced every year is easily matched by the unofficial output of fans. Since the early 1900s, fans have found simple yet effective ways to show their support, from wearing ribbons in team colours to making rosettes, scarves, flags and banners. Dedicated fans collate and analyse club news in unofficial magazines, while others create stickers, badges or calling cards as a way to assert their identity.

Many would not consider themselves to be designers, or even to have an interest in design. Yet they demonstrate a huge amount of skill and creativity in creating these materials, showing the fan to be an important and engaged producer rather than a passive consumer.

## Liverpool memorial banners

Liverpool supporter Peter Carney makes banners for the famous Kop end at Anfield, a section of the terraces reserved for home supporters. Alongside designs celebrating players, coaches and famous victories, some of Carney's most significant work commemorates the Hillsborough stadium disaster. In 1989, Liverpool visited Sheffield Wednesday's ground for an FA Cup semi-final and 97 fans were killed as a result of a human crush. Carney survived and went on to become a key campaigner in the fans' fight for justice. His two memorial banners — the first created in the week after the tragedy and the second on its 20th anniversary — stand as a lasting tribute to those whose lives were taken. Further information about Hillsborough is provided in the following section.

### Hillsborough memorial banner

Peter Carney and Christine Waygood, 2009, based on original from 1989  
Peter Carney

### (More) Destiny Delivered

Peter Carney and Carmel Gittens, 2005, 2007  
Peter Carney

**The Hillsborough memorial banner by Peter Carney is currently in use for the Hillsborough anniversary and Memorial Service on 15 April 2022. It will be back on display soon after. Thank you for your understanding.**

## Mini Hillsborough memorial banner

Peter Carney, 2010  
Peter Carney

## Fanzines

Fanzines are unofficial publications created by a club's supporters that offer an alternative look at their team. The first football fanzine published in the UK was 'Foul', produced by University of Cambridge students between 1972 and 1976. 'Foul' inspired a glut of fanzines in the 1980s, with prominent titles such as 'When Saturday Comes' and Leeds United's 'The Square Ball' still produced today. Taking inspiration from the anarchist zine movement of the 1970s, many fanzines have a political element, taking satirical aim at club policy.

- 1 Born Kicking, Issue 1, September/October 1990
- 2 Chelsea Independent, Issue 14, September 1989
- 3 The City Gent, Issue 1, November 1984
- 4 Leyton Orientear, No. 37, March 1990
- 5 Clap Your Hands Stamp Your Feet!, No. 8, December 1990
- 6 The Arsenal Echo Echo, Issue 12, October/November 1989
- 7 The Pie, Issue 18, c.1980s

All National Football Museum

## Hooligan calling cards

Henry Griffin, Holicards

At the height of the football hooligan era of the 1970s and 1980s, rival gangs of supporters or ‘firms’ would meet to fight on the day of a match. These calling cards, originally pioneered by West Ham’s Inter City Firm, were dropped at the scene of a brawl to signify the victors’ success. The cards were designed by members of the firm and often parodied the visual language of British establishments.

## Eastbourne Town FC Ultras stickers

Alex Brown, 2020

Although small, stickers are an important part of the activities of Ultras. They are easily pasted around rival grounds, allowing supporters to express their identity in playful ways. These stickers were produced by a member of Pier Pressure, a left-wing Ultras group attached to Eastbourne Town, a club in the ninth league of the English football pyramid.

Alex Brown

## Soften Up Hard Lad

Corbin Shaw, 2019

Corbin Shaw is a multidisciplinary artist who uses the medium of football banners to question traditional ideas of masculinity and identity. Originally from Sheffield, Shaw was impelled by the suicide of a family friend. By manipulating the familiar visual language of football banners, Shaw effectively comments on the importance of mental health to football fans.

Corbin Shaw

## Match-day programmes

The programme is a small booklet sold at a match that contains details about the game. Early versions were disposable, containing purely practical information, such as the names and positions of the players. Today they are bought as souvenirs, and vintage programmes are highly collectable.

From the 1880s until the 1900s, programmes were often single sheets. In the 1910s, the modern booklet with attractive covers emerged, with some of the finest designs coming from Chelsea, Arsenal and Aston Villa. Paper shortages during the First and Second World Wars signalled a return to simpler designs, until the late 1950s when programmes became more substantial and varied.

- 1 The Villa News and Record, November 1906, facsimile  
National Football Museum

- 2 Arsenal Football Club official programme, 1939/40  
National Football Museum

- 3 The Chelsea FC Chronicle, 30 September 1939  
National Football Museum

- 4 Ladies' Football Match team sheet, Westlands V  
Bincleaves, 14 April 1945  
National Football Museum

- 5 Sheffield United, 1945  
National Football Museum

- 6 Leeds United AFC, season 1959/60  
National Football Museum

- 7 The Villa News and Record, 29 March 1969  
Matthew Caldwell, One Shilling
- 8 Blackpool FC, 24 August 1963  
National Football Museum
- 9 Millwall, 9 September 1964  
National Football Museum
- 10 Sheffield Wednesday, 2 September 1964  
National Football Museum
- 11 Wolverhampton Wanderers official programme, 6 January 1968  
Matthew Caldwell, One Shilling
- 12 The Villa News and Record, 29 March 1969  
Matthew Caldwell, One Shilling
- 13 Barnsley FC, 28 August 1971  
National Football Museum
- 14 Leicester City FC, 1972/73  
Alan Dein
- 15 West Ham United, 30 August 1978  
National Football Museum

## Sky Blue match-day programmes 1970/71

John Elvin, 1970–71

The 1970s are often considered to be a golden era for match-day programme design. Programmes became more substantial and featured playful layouts and bold experiments in typography. British designer John Elvin's work for Coventry City's Sky Blue match-day programme is emblematic of this shift in approach. Elvin turned Sky Blue into a fully fledged magazine that fans kept as a memento. His unique style of bold typography and high-contrast imagery earned a prize at the inaugural Design & Art Direction Awards in 1972.

Mark Elvin, Paul Elvin, Samantha Elvin

## Sky Blue, process material

John Elvin, 1970–71

Mark Elvin, Paul Elvin, Samantha Elvin

Top row

- 1 Netherlands Home 1988  
adidas  
Classic Football Shirts Museum
- 2 France Women Away 2019  
Nike  
National Football Museum
- 3 Argentina Away 1994  
adidas  
Classic Football Shirts Museum
- 4 Hull City Home 1992/93  
Matchwinner  
Classic Football Shirts Museum
- 5 Wales Home 1976  
Admiral  
Classic Football Shirts Museum
- 6 Newcastle United Home 1995/96  
adidas  
Classic Football Shirts Museum
- 7 Saint-Etienne Home 1980/81  
Le Coq Sportif  
Classic Football Shirts Museum
- 8 Juventus Away 1997  
Kappa  
Classic Football Shirts Museum

9	Derby County Away 1984/85 Admiral National Football Museum	Second row
10	West Germany Home 1990 adidas Classic Football Shirts Museum	1 Arsenal Away 1991/93 adidas Classic Football Shirts Museum
11	AC Milan Home 1989/90 Kappa Classic Football Shirts Museum	2 Napoli Home 1989/90 Ennerre Classic Football Shirts Museum
12	England Third 1990 Umbro Classic Football Shirts Museum	3 England Goalkeeper 1995/96 Umbro Classic Football Shirts Museum
13	Australia Home 1990 Kingroo Classic Football Shirts Museum	4 Mexico Home 1998 ABA Sport Classic Football Shirts Museum
14	Denmark Home 1986 Hummel Classic Football Shirts Museum	5 Barcelona Home 1989 Meyba Classic Football Shirts Museum
15	England Women Home 2009 Worn by Katie Chapman during 2009 Euros match against Russia Umbro National Football Museum	6 Colombia Away 1990 adidas Classic Football Shirts Museum
		7 Manchester United Away 1990 adidas Classic Football Shirts
		8 Liverpool Home 1982 Umbro Classic Football Shirts Museum

9	Greenbank U10s 2006 Gary Weight and Motorhead with Nike Charlie Weight	Third row
10	Netherlands Women Home 2009/10 Nike National Football Museum	1 Flamengo Home 1990 adidas Classic Football Shirts Museum
11	Celtic Home 1988 Umbro Classic Football Shirts Museum	2 Nigeria Home 1994 adidas Classic Football Shirts Museum
12	France Women Home 2011 Worn by Corine Franco in 2011 Women's World Cup match against England Nike National Football Museum	3 Scotland Home 1978 Umbro Classic Football Shirts Museum
13	Liverpool Goalkeeper 1995 adidas Classic Football Shirts Museum	4 Nottingham Forest Away 1995 Umbro Classic Football Shirts Museum
14	Real Madrid Home 2001 adidas Classic Football Shirts Museum	5 Leeds United Home 1973 Umbro Classic Football Shirts Museum
15	Boca Juniors Home 1981 adidas Classic Football Shirts Museum	6 Palmeiras Home 1990 adidas Classic Football Shirts Museum
		7 Italy Home 2000 Kappa Classic Football Shirts Museum
		8 Portugal Home 2004 Nike Classic Football Shirts Museum

9 USA Away 1994  
adidas  
Classic Football Shirts Museum

10 Romance FC Human Race 2020  
Mark Sturgess for adidas x Pharrell Williams Romance FC

#### Fourth Row

1 Chelsea Away 1994  
Umbro  
Classic Football Shirts Museum

2 Dortmund Home 1995  
Nike  
Classic Football Shirts Museum

3 Croatia Home 1998  
Lotto  
Classic Football Shirts Museum

4 Schalke Home 1993/94  
adidas  
Classic Football Shirts Museum

5 Northern Ireland Home 1990  
Umbro  
Classic Football Shirts Museum

6 Paris Saint-Germain Home 1993  
Nike  
Classic Football Shirts Museum

7 China Away 2018  
Nike  
Classic Football Shirts Museum

8 Parma Home 1999  
Lotto  
Classic Football Shirts Museum

9 Japan Home 1998  
Asics  
Classic Football Shirts Museum

10 Jamaica Home 1998  
Kappa  
Classic Football Shirts Museum

11 Tottenham Home 1985/87  
Hummel  
Classic Football Shirts Museum

#### Bottom Row

1 Netherlands Away 2014/15  
Nike  
Floor Wesseling

2 Kobenhav Home 2007  
Kappa  
Classic Football Shirts Museum

3 Forward Madison Third 2020  
Umbro  
Classic Football Shirts Museum

4	Pumas Home 2009 Puma Classic Football Shirts Museum	Vera Hutchinson, from the series 'In Soccer Wonderland'
5	Hackney Laces 2020 Nomad/Nike Hackney Laces	Julian Germain, C-type print, 1992 Martin Parr Foundation Collection
6	Brazil Home 2002 Nike Classic Football Shirts Museum	<b>Handmade supporter's scarf, Preston North End</b>
7	River Plate Home 1996 adidas Classic Football Shirts Museum	1964  Before replica kits became available, fans showed their support by wearing hand-knitted scarves in their team colours. The practice originated in the UK, where these handmade items served the dual purpose of allowing fans to show their support while also keeping them warm. Today, scarves are worn by fans across the world and are an important element in crowd displays.
8	RB Leipzig Home 2009/10 adidas German Football Museum, Dortmund	National Football Museum
9	Ajax Away 1989 Umbro Classic Football Shirts Museum	
10	AEK Athens Home 1995/97 Kappa Classic Football Shirts Museum	

## Half & Barf scarves

Dave Newbold, 2017

Half & Barf scarves are a range of protest scarves designed by advertising creative Dave Newbold. The scarves are a parody of 'half and half scarves', a recent form of football memorabilia in which the names of both teams are printed on a scarf to commemorate a specific match. These consumer items are thought to appeal mainly to tourists and are often mocked by dedicated football supporters.

Dave Newbold

## VOLTA

Stephen Dean, 2002–03

Image: Stephen Dean , Anne Deleporte, sound: Vincent Tarriere, Vince Theard, editing: Stephen Dean, Gloria films production, Paris, special thanks: Capacete Entertainments, Rio de Janeiro  
Duration 9:00

Focusing on the crowds at Maracanã Stadium in Rio de Janeiro, Brazil, French-American artist Stephen Dean captures the beauty and chaos emanating from the stands. Fields of colour fill the screen, providing an alternative spectacle to the one taking place on the pitch.

Courtesy of Stephen Dean

# Crowds

Football has always been a popular spectator sport. Since the late 1800s, large crowds have gathered to watch matches. This led to the development of a very particular piece of public architecture: the football stadium. The primary purpose of the stadium is to manage crowds. These highly engineered buildings are designed to allow huge numbers of people to flow in and out efficiently, safely and quickly. They anticipate, manage and accommodate crowd behaviour, and their failure to do so safely has had tragic consequences in the past.

The demands on a stadium are not only practical. Many fans compare attending a football match to a religious experience, with stadiums routinely likened to cathedrals or temples. Both experiences rely heavily on a sense of procession, ritual and communion. Through enormous graphic displays, choreographies, rhythmic clapping and singing, fans appropriate and subsume the stadium. In this way, they turn a starkly functional space into an all-consuming shared experience.

## Turnstile from Wembley Stadium, London

W T Ellison, Salford, 1923  
National Football Museum

## Original lawn from Wembley Stadium, London

Cast in acrylic by Dave Davies, 2003  
German Football Museum, Dortmund

## Sound

The sound of the crowd is an integral part of football. Whether experienced in person or on-screen, it reflects and amplifies the spectator's emotions, connecting them with the drama of the game. Many of the sounds made are spontaneous and reserved exclusively for match days: groans, screams, jeers or ecstatic cheering. During the COVID-19 pandemic, eerie silence made the absence of crowds even more conspicuous during professional football matches.

Certain crowd sounds are highly organised. These include the singing of club anthems — often invented by fans — rhythmic clapping and call-and-response routines. The last can either be between supporters of the same club, or between two opposing sets of fans. They are all powerful ways of encouraging players and serve to establish a club's strength and solidarity. These are also potent unifying experiences, as every member of the crowd subconsciously breathes and moves in unison.

## 'Just Can't Get Enough', Celtic FC V Inter Milan

2015

Duration 0:55

Chanting has formed a part of football culture since the 1880s. It was not until the 1960s, however, that chants became integral to the fan experience in the UK. Pop music had become an important form of self-expression, and those songs were quickly appropriated and adapted by different clubs, a practice that continues to this day. Many examples of club chants can be heard in the soundscape created for this exhibition.

## Colchester United fan rattle, used during Colchester V Arsenal, FA Cup fourth round, 24 January 1959

Roly Smith, 1959

Football rattles are ratchet devices used to make a loud noise. Comprising a gearwheel and stiff board mounted to a handle, the board clicks against the teeth of the gearwheel when the handle is swung around. Ratchets were a common fixture on UK football terraces up until the 1970s, when increased violence among fans led to the rattles being banned for fear of them being used as weapons.

National Football Museum

## 2010 FIFA World Cup Vuvuzela

2010

A vuvuzela is a plastic horn that produces a loud monotone note. Originating in South Africa, it is based on the traditional kudu horn used to summon villagers to community gatherings. It gained international notoriety during the 2010 FIFA World Cup, hosted by South Africa, as the intense sound reportedly distracted players, commentators and spectators. The instrument can cause permanent ear damage and has since been banned by a number of sporting organisations.

Design Museum

## Dortmund

Andreas Gursky, 2009  
C-Print, Diasec  
Sammlung Pohl

## Nordkurve Gelsenkirchen, banners and choreography

Ultras Gelsenkirchen, 2015  
Duration 1:37  
Courtesy of Ultras Gelsenkirchen

## Ultras

Organised fan groups are a powerful presence in most football stadiums. Taking different forms across the globe, the most widely adopted model is that of the Ultras. Named after the Ultra-royalists, a small group of dedicated monarchists active in France during the Bourbon Restoration of 1815–30, they are known for their extreme dedication to their club and impressive choreographies. Ultras usually have a core team of founders who coordinate the group's activities.

Ultras are often confused with hooligans, a type of football fandom originating in the UK where members actively seek out violent confrontation with opposing supporters. While various Ultras groups have engaged in violent behaviour, their primary purpose is to provide conspicuous shows of support for their team. This can extend to include particular social or political ideologies and, in recent years, has come to include large-scale protests against football's increasing commercialisation.

## Protesting students, Rome, May 1968

Manfred Vollmer, 1968

The origins of the Ultras movement are contested. Torcida Split in Croatia are widely acknowledged as the longest-running supporters' group of this type. However, the movement is more closely associated with Italian fans, in particular AC Milan's 'Fossa dei Leoni' and 'The Boys' at Inter Milan, both formed in 1968. This was a time of political turmoil in Italy, marked by student demonstrations and mass protests. Banners, flags and chants made their way on to the terraces and became a new language for organised football supporters.

Courtesy of Sueddeutsche Zeitung Photo/Alamy Stock Photo

## Supertifo, January 1990

Benedicta SRL, 1990

The Italian style of football fandom gained immense popularity after Italy hosted the FIFA World Cup in 1990. The formation of Ultras groups spread rapidly across southern and eastern Europe, finding particular resonance in countries of the former Eastern Bloc, such as Poland. Ideas for choreography were drawn either from first-hand experience or from specialist publications such as Supertifo. Formed in 1985 and still in print, this bimonthly magazine provides worldwide coverage of Ultras activities, including photographs of the most impressive displays.

Design Museum

## Coligay

Organised football fandom has traditionally been an almost exclusively male, heterosexual arena. This has been challenged in recent years as more diverse groups of fans have fought to create and legitimise their own spaces within the stadium. This movement has been greatly helped by the rise in popularity of professional women's football, as the women's game carries a long history of accessibility and inclusion, particularly for LGBTQ+ supporters.

Historical examples of diverse organised fan groups also exist within the men's game. Coligay was a Brazilian fan group formed in 1977, predominantly by men who identified as homosexual. They supported Grêmio Foot-Ball Porto Alegrense and, for five years, were a respected part of the club's fanbase, producing loud, colourful and original displays.

Coligay fan display  
Ricardo Chaves, 1979  
Courtesy of Ricardo Chaves

## Early stadiums

Stadium design has its roots in antiquity. The ancient Greeks and Romans devised oval or circular arenas for watching competitive games and theatrical performances. The precise geometry of these spaces and their tiered seating gave each spectator a good view and amplified the sound. The basic principles of stadium design remain the same today.

Early football stadiums in the UK consisted of little more than a pitch surrounded by temporary wooden seating or artificial mounds of dirt for spectators to stand on. As football became more formalised and profitable, areas for spectators were improved.

## Advertisement for W T Ellison & Co Rush Preventive Turnstile

1904

The design of football stadiums — and indeed the experience of attending a match — was transformed by the invention of reliable turnstiles. These simple mechanisms allowed clubs to control the sale of tickets and entry to football games, forming the backbone for all future stadium developments. Salford engineers W.T. Ellison & Co. invented the Rush Preventive Turnstile in 1895. These were soon installed in many of the UK's largest football stadiums. The company claimed that each turnstile could process up to 4,000 entrants per hour, or 3,000 if, upon purchase of a ticket, change needed to be given.

Design Museum

## Archibald Leitch

1924

Scottish architect and engineer Archibald Leitch was often hailed as the grandfather of football stadium design. Between 1899 and 1939, he partly or wholly designed 20 stadiums across the UK and Ireland, including those for Arsenal, Aston Villa, Chelsea, Liverpool, Manchester United, Preston North End, Glasgow Rangers, Sunderland, Tottenham Hotspur and Wolverhampton Wanderers.

Leitch's early work focused on the design of factory buildings, both in Ceylon (now Sri Lanka) and his home city of Glasgow. His first football commission was the new grounds for his boyhood team, Rangers. His design for Ibrox Park was completed in 1899. It consisted of a detached pavilion with 1,715 seats and steel-and-timber terracing for up to 66,018 people standing. The overall capacity of the new stadium was 75,000, making it the largest in the world at the time, but tragedy following its opening meant the capacity was quickly reduced.

Courtesy of Played in Britain

## **Photographs taken in the wake of the Ibrox disaster, 5 April 1902**

1902

The first time that the new stadium was tested by a capacity crowd was on 5 April 1902, when Ibrox Park hosted a Scotland V England game. Shortly after kick-off, a top section of the wooden terracing gave way, causing 125 people to fall more than 15 metres to the ground below. 25 people were killed and a further 517 were injured in the ensuing rush to escape. Although no individual was held legally responsible, it was agreed that at least double the number of joists were needed in order to be able to hold the stated capacity.

Scottish Football Museum

## **Patent No.GB190604453A ‘An Improved Method of Constructing the Terracing and Accessories thereof in Football and other Sports Grounds’**

Archibald Leitch, 1906

After the Ibrox disaster, Leitch persuaded Rangers to let him build the replacement stand. He created slopes of earth to support the tiered structure, a method used for many other stadium designs. Subsequent designs included a greater number of aisles to make it easier to enter and exit the stands, and these were sunken to dissuade fans from standing in them to watch the game. The disaster inspired Leitch to design and patent a tubular-steel crush barrier, which he believed would help prevent future stampedes.

British Library (Patents Department)

## **East Stand at Tottenham Hotspur’s ground, White Hart Lane, London**

1934

Courtesy of H F Davis/Topical Press Agency/Getty Images

## Football factories

Despite the Ibrox disaster, Archibald Leitch went on to design 20 stadiums across the UK and Ireland. His experience as a factory architect allowed him to build large structures quickly and cheaply. He developed his own distinctive style, using a limited range of industrial materials.

A typical feature of his design was the two-tiered stand with criss-crossed steel balustrades on the upper tier, covered by a series of pitched roofs and occasionally a central gable. Another recurrent feature was a cottage-style pavilion to house dressing rooms, a boardroom, a manager's room and a gym. Craven Cottage, the pavilion after which Fulham's ground is named, is the only surviving example of this style.

Top row

New grandstand for Liverpool FC  
Archibald Leitch, 1906

Details of doors, windows and pay boxes, Anfield Stadium,  
Liverpool  
Archibald Leitch, 1906

Block plan showing arrangement of drainage, Anfield  
Stadium, Liverpool  
Archibald Leitch, 1906

All Liverpool Football Club Museum

Bottom row

Plans for the grandstand at Ayresome Park, Middlesbrough  
Archibald Leitch, 1903, reproduced 1978

Plans for pitch and drainage, Middlesbrough Football Club  
Archibald Leitch, 1907

Details for new grandstand, Middlesbrough Football Club  
Archibald Leitch, 1903, reproduced 1978

All Teesside Archives

**1 Proposed new ground for Arsenal FC  
at Highbury, London**

Archibald Leitch  
1913

**2 New grandstand for Arsenal FC,  
London**

Archibald Leitch  
1913

**3 Details of roof gables for the new  
grandstand, Arsenal FC, London**

Archibald Leitch  
1913

All London Metropolitan Archives, City of London Corporation

Back row

**Original seating from Centenario  
Stadium, Montevideo, Uruguay**

1930  
Scottish Football Museum

Front row

**Seating from Hampden Park, Glasgow**

c.1969  
Scottish Football Museum

**Original seating from Wembley Stadium,  
London**

1923  
National Football Museum

## Stadium disasters

Football has a long history of stadium disasters. There have been eight tragic instances, since the Ibrox tragedy of 1902, in which 50 or more people have lost their lives. The highest death toll to date occurred during a match in 1964 between Argentina and Peru at Lima's Estadio Nacional, where 328 people were killed and 500 injured as a result of crowd crushes.

Stadium disasters have been caused by a combination of factors, including staffing issues, unexpected or dramatic events on the pitch, and even adverse weather conditions. The common denominator, however, is the architecture of the stadium itself. A well-designed stadium should take account of the risk factors that might contribute towards unexpected crowd surges, preventing crushes or other dangerous situations.

## Wembley pitch invasion, FA Cup Final, London, 28 April 1923

Campbell Gray, 1923  
National Football Museum

## 'Guide to Safety at Sports Grounds', UK Government booklet

Crown copyright, 1960s  
National Football Museum

## 'A slum sport'

The 1980s saw a spike in stadium disasters, with six separate events across the globe tragically claiming the lives of about 335 people. While each event was caused by its own unique set of circumstances, the common factor was a lack of investment in stadium infrastructure. This was particularly true in the UK, where stadium design had remained relatively unchanged since the lifetime of Archibald Leitch (1865–1939). Along with the rise in hooliganism, this saw football wrongly vilified as an unattractive, crude and violent remnant of British working-class culture. In 1985, the Sunday Times newspaper described the game as 'a slum sport played in slum stadiums, and increasingly watched by slum people'.

Stamford Bridge, London, Arsenal V Chelsea  
Homer Sykes, c.1985  
Courtesy of Homer Sykes/Alamy Stock Photo

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Stamford Bridge, London, Arsenal V Chelsea

Homer Sykes, c.1985

Courtesy of Homer Sykes/Alamy Stock Photo

## Transcript

'Well, I think the biggest irony is that the sun is shining now, and Hillsborough's quiet, and over there, to the left, the green Yorkshire hills... and who would've known that people would die here in the stadium this afternoon.'

'I don't necessarily want to reflect on Heysel, but I was there that night, broadcasting with Emlyn Hughes, and he was sitting behind me this afternoon — and after half an hour of watching stretchers going out and oxygen cylinders being brought in, and ambulance sirens screaming, he touched me on the shoulder and he says, "I can't take any more", and Emlyn Hughes left.'

'The gymnasium here, at Hillsborough, is being used as a mortuary for the dead, and at this moment stewards have got little paper bags, and they're gathering up the personal belongings of the spectators... and there are red and white scarves of Liverpool, and red and white bobble hats of Liverpool, and red and white rosettes of Liverpool, and nothing else.'

'And the sun shines now.'

Selection from a collection of 6,000 colour photographic slides taken by photographer Jim Froggatt, Inspector with the Football Licensing Authority, from 1991 until his retirement in 2007

Jim Froggatt, 1991–2007

A judicial inquiry was held immediately after the Hillsborough disaster. It recommended a move to all-seated stadiums, a change that was implemented at all clubs in the UK's top two divisions by 1994. The report led to the landscape of football being transformed through closer regulation and better safety in stadiums.

National Football Museum

## Next-generation stadiums

Since the Hillsborough disaster, all-seated football stadiums have become standard in many other parts of the world. The cost of updating and maintaining grounds has led to increased ticket prices. Architects of new football stadiums must tread a fine line between reflecting the emotional significance of each ground and the financial reality of running a safe and efficient site.

Architects devising new forms for football stadiums seek to reflect the different values and priorities of each club. With crowd safety and circulation being a priority, new digital technologies map crowd movements, while acoustics and sightlines are modelled to an incredible degree. The ritual aspects of the match-day experience are met in surprising ways, while the relationship between the stadium and its surrounding landscape offers further avenues for experimentation and architectural expression.

## **Stadio San Siro, Milan, Italy**

Ragazzi and Partners, 1990

Stadio Giuseppe Meazza, commonly known as San Siro, is the home of both AC Milan and Internazionale. It is the largest stadium in Italy and one of the largest in Europe, with a seating capacity of 80,018. It was constructed in three stages, each increasing the capacity through the layering of stands and circulation spaces.

Courtesy of Ragazzi and Partners archive

## **Spiral staircases, San Siro Stadium, Milan, Italy**

Ragazzi and Partners, 1990

The original stadium was commissioned by Piero Pirelli and built in 1925 with a capacity of 50,000. An extension was completed in 1955, doubling the capacity by adding three vertically arranged rings of spectator rows. These were accessed by 19 spiral ramps, each 200 metres long, that formed a distinctive outer shell to the stadium. The capacity was later reduced for safety reasons, until a second renovation commissioned in 1985 transformed the landmark building into an all-seated venue.

Courtesy of Ragazzi and Partners archive

## **Preparatory sketches for Stadio San Siro, Milan, Italy**

Giancarlo Ragazzi, 1990

The third stage of San Siro's development coincided with Italy hosting the 1990 FIFA World Cup. Although it was initially intended that the old stadium would be demolished and rebuilt, the existing structure was updated due to time and financial constraints. Architects Ragazzi and Partners designed a third ring of seats along three sides of the stadium, supported by 11 concrete towers. Each tower was wrapped in a spiral walkway, echoing the long ramps of the existing outer shell and creating a hypnotic sense of procession around the building. This showcased a new, creative approach to stadium design.

Courtesy of Ragazzi and Partners

## **1:100 scale model, Tottenham Hotspur Stadium, London**

Populous, 2014

Opened in 2019, Tottenham Hotspur Stadium was built on the site of White Hart Lane, Tottenham's home ground from 1899 to 2017. The move to all-seated stands had dramatically reduced the capacity of the original stadium, so it was demolished. The new ground is now the largest club stadium in London, with a capacity of 62,850. It features a tight oval-shaped bowl with steeply angled stands, allowing spectators to be closer to the pitch and creating a more intense atmosphere.

Populous

## **View from the South Stand, Tottenham Hotspur Stadium, London**

Designed by Populous, 2014–18, photograph by Edward Hill, 2019

Courtesy of Edward Hill

## **Retractable pitch, Tottenham Hotspur Stadium, London**

Populous, 2019

Tottenham Hotspur's new stadium includes a fully retractable pitch, which can be used for both football and NFL (National Football League) American football games. The stadium is the first venue in Europe purpose-built for the NFL and enables the club to generate additional revenue. The pitch is maintained by a head groundsperson and 15 full-time assistants.

Courtesy of Tottenham Hotspur

## **Acoustic modelling, Tottenham Hotspur Stadium, London**

Populous, 2019

A specialist team was hired to develop the acoustics of the building. Acoustic panels were fixed to the underside of the roof and angled to reflect sound back into the stadium bowl. Some were perforated to absorb sound, preventing the noise from becoming too loud. This approach allowed sound to reverberate quickly around the stadium with little echo, preventing competing chants from fans in different parts of the crowd from becoming muddled.

Courtesy of Populous

## **Acoustic treatment and viewing platform, Tottenham Hotspur Stadium, London**

Designed by Populous 2014–18, photography by Hufton + Crow, 2019

Courtesy of Hufton + Crow

## Allianz Arena, Munich, Germany

Designed by Herzog & de Meuron 2002–05, photographs by Robert Hösl

Allianz Arena is a football stadium outside Munich, Germany, with a capacity of around 70,000. It was initially designed to be the home of two local teams, Bayern Munich and TSV 1860 Munich, but since 2017 it has been solely occupied by Bayern Munich. The stadium has three defining characteristics: an inflatable plastic outer shell that can be illuminated at night; long, processional walkways built into the surrounding landscape; and a crater-like interior.

Courtesy of Herzog & de Meuron

## 1:20 scale facade model, Allianz Arena, Munich, Germany

Herzog & de Meuron  
Competition 2001–02, project 2002–04, realisation 2002–05  
Jacques Herzog und Pierre de Meuron Kabinett, Basel

## Allianz Arena documentation: luminous façade, manufacturing process, construction and completion, Munich, Germany

Herzog & de Meuron, 2005  
Duration 0:56

The illuminated outer skin of the stadium is composed of large, diamond-shaped ethylene tetrafluoroethylene (ETFE) cushions. ETFE is a fluorine-based plastic that resists deterioration and keeps its strength in a range of temperatures. The colour of each individual cushion can be controlled digitally, changing the appearance of the stadium. This initially allowed the building to communicate which of its two resident teams was playing, but it continues to act as an architectural beacon across the open landscape.

Courtesy of Herzog & de Meuron and Allianz Arena München Stadion GmbH

## **1:50 scale presentation model, Stamford Bridge, London**

Herzog & de Meuron, Concept 2013 –

In 2017, planning permission was granted for the construction of a new 60,000-seat stadium to replace Stamford Bridge, the home of Chelsea. The new stadium is inspired by Westminster Abbey, with 264 brick piers set to enclose the existing structure and create a covered walkway around its perimeter. The brickwork, referencing local architecture, supports a steel ring above the pitch to cover the increased number of seats. The project was abandoned in 2018 due to financial and legal issues.

Jacques Herzog und Pierre de Meuron Kabinett, Basel

From top

### **South-west view of Stamford Bridge, London**

Concept by Herzog & de Meuron, 2013

### **Aerial view of Stamford Bridge, London**

Concept by Herzog & de Meuron, 2013

### **Section of Stamford Bridge, London**

Concept by Herzog & de Meuron, 2013

All courtesy of Herzog & de Meuron

## **Forest Green Rovers Eco Park stadium, Gloucestershire**

Zaha Hadid Architects, 2016—

In 2019, Zaha Hadid Architects were granted planning permission to build the world's first all-timber stadium. Home to Forest Green Rovers, the stadium embodies the club's environmentally conscious ethos by using low-carbon construction methods and operational processes. Almost every element is made of sustainably sourced timber and the entire complex is powered by sustainable energy. The design retains and enhances the existing meadow landscape of the site, creating a striking landmark that is respectful of its pastoral setting.

Render by MIR, courtesy of Zaha Hadid Architects

## **Interior lobby, Forest Green Rovers Eco Park stadium, Gloucestershire**

Zaha Hadid Architects, 2016—

Forest Green Rovers were named the world's 'greenest' football club after they reached carbon-neutral status in 2017. Players have adopted a vegan diet, while kits are made of sustainably sourced materials such as bamboo, recycled plastic and recycled coffee grounds. The organic grass pitch is watered with recycled rainwater, while solar panels are used to power floodlights. The club is chaired by Dale Vince, founder of green electricity company Ecotricity, and the new stadium will form the centrepiece of a new green-technology business park.

Render by negativ.com, courtesy of Zaha Hadid Architects

## **Reference images, Forest Green Rovers Eco Park stadium, Gloucestershire**

Structural diagram, Al Janoub Stadium, Al-Wakrah, Qatar  
Zaha Hadid Architects  
Design 2014, Completed 2019  
Courtesy of Zaha Hadid Architects

Crystal Bridges Museum of American Art, United States,  
Café Space  
Timothy Hursley, 2012  
Courtesy of Safdie Architects

## **Estádio Municipal de Braga, Portugal**

Designed by Eduardo Souto de Moura, 2000–03, photograph by Dacian Groza, 2003  
Courtesy of Dacian Groza

### **1:500 scale model, Estádio Municipal de Braga, Portugal**

Maker Manuel Gaspar, designer Eduardo Souto de Moura, 2000–03

Braga Municipal Stadium is the 30,286-capacity home to Sporting Clube de Braga. Also known as ‘A Pedreira’ (The Quarry), the stadium is carved into the face of the adjacent Monte de Castro and offers spectacular views of the city below. Two concrete stands stretch along the length of the pitch, their cantilevered roofs connected by a series of steel cables. The design was inspired by ancient South American bridges built by the Incas.

Estádio Municipal de Braga/Arquitecto Eduardo Souto Moura/  
Arquivo da Casa da Arquitectura

### **Preparatory sketches, Estádio Municipal de Braga, Portugal**

Eduardo Souto de Moura, 2003

When Souto de Moura won the Pritzker Prize, architecture’s highest accolade, for his stadium design in 2011, former US President Barack Obama congratulated him for the fact that its design was both beautiful and egalitarian. The building is positioned so that those who can’t afford a ticket can watch from the surrounding hillside, extending the sightlines beyond the stadium itself.

Courtesy of Souto Moura – Arquitectos, S.A.

### **Stadio Luigi Ferraris, Genoa, Italy**

Designed by Vittorio Gregotti, 1987–89, photographs by Matteo de Mayda, 2020

The Luigi Ferraris Stadium is a 36,600-capacity stadium in Genoa, Italy, that is home to rival teams Genoa CFC and UC Sampdoria. Originally opened in 1911, the stadium was dismantled and rebuilt before the 1990 FIFA World Cup according to a new design by Vittorio Gregotti. Drawing inspiration from the surrounding neighbourhood, Gregotti created a stadium that echoed the form and colour of nearby housing. This series of photographs was taken the day after the architect’s death from COVID-19, at the age of 92.

Courtesy of Matteo de Mayda

# Spectacle

It is impossible to separate the fun, exhilaration and virtuosity of football from its role as a spectacle. Vastly more people watch football than play it, and the basis for this is competition. An expansive and intricate cycle of matches has been built up over time, evolving from small local games to major national events and international cup tournaments. These fixtures form the backbone of the football industry and are the source of its wealth, impact and reach. Without tournaments, football as we know it would not exist.

As the most popular show on Earth, football viewership generates enormous amounts of money. In 2016, European football alone was estimated to be worth £22 billion, a figure that is set to rise. High financial stakes combined with opaque governing practices have led to widespread corruption. Money laundering, bribery, extreme commodification of players and the overwhelming influence of betting companies are undeniably aspects of the game today. Whether or not they continue to be remains to be seen.

## Advertisement for a women's football match

1895

Courtesy of National Football Museum

## Tournaments

The world's longest-running football tournament, the Football Association Cup, was created in 1871 as a way to build excitement and support for the newly developing sport. The first FA Cup final took place at the Oval cricket ground in London, drawing a crowd of 2,000 people. The winners' trophy is one of the most coveted in English football.

As well as drawing audiences, another function of tournaments is nation-building. The FIFA World Cup — the largest football tournament on Earth, running every four years since 1930 — is seen as a valuable opportunity by host countries to assert their national identity to the rest of the world.

## Peter Harvey, aged 9, with the FA Cup, from the series 'In Soccer Wonderland'

Julian Germain, 1991, original photograph 1939  
Martin Parr Foundation Collection

## Football Association Cup, replica

Designed 1896, reproduced 2021

There have only ever been two designs and five physical trophies for the Football Association Challenge Cup, as it was first known. The original, made in 1871 and nicknamed the 'little tin idol', was stolen from a Birmingham shop window in 1895, never to be recovered. A new trophy was cast from the mould of the original and used until 1910.

Manchester City Football Club

## Football Association New Challenge Cup, replica

Original design Fattorini & Sons, 1911, updated design Thomas Lyte 2014

In 1911, a new and more grandiose FA Cup trophy was designed and manufactured by Fattorini & Sons of Bradford. It was retired in 1992 and an exact replica was made, which was itself replaced in 2014 due to extensive wear. To withstand being handled by players, fans and school groups, the Queen's silversmiths, Thomas Lyte, made this perfect replica 50% heavier. Crafted from 6.3kg of sterling silver, it is still in use today.

Arsenal Football Club

## Women's Football Association Cup, replica

Thomas Lyte, Designed 1997, reproduced 2020

An independent Women's Football Association was formed in 1969, shortly before the FA's ban on women playing was finally lifted in England. A year later, it introduced its own cup tournament, in which 71 teams from across England, Scotland and Wales participated. The current trophy, commissioned in 1997, incorporates three lionesses, two of which form the handles of the cup.

Chelsea Football Club

## Nine house caps, Rugby School

c.1850s

The humble cap is a prized symbol used to honour players who represent their country at international level. The British tradition of awarding caps to players originated at Rugby School, an elite English boys' school where pupils played Rugby football. Velvet caps were awarded to leading players and worn for official photographs. Differences in colour and design of these caps distinguished which House the players belonged to.

Rugby School

## SFC school boy's cap

1901

National Football Museum

## Caps

Awarding caps was introduced into football in 1886 as a means of incentivising players and providing a sense of reward. Initially, tournaments were played only between the Home Nations of Great Britain, with the colour of the cap changing depending on England's opponents: purple for Scotland, red for Wales and white for Ireland (a united country at that time).

- 1     England V Scotland cap, 1930–31
- 2     England V Wales cap, 1895
- 3     England V Ireland cap, 1911

All National Football Museum

## Sheila Parker's Women's Football Association cap against France

1970s

In what was an act of gender discrimination, the FA initially refused to supply caps to female players, so theirs had to be handmade, often by the players themselves. Sheila Parker was appointed as first captain of the England women's team in 1972 and remained so until 1976.

National Football Museum, on loan from Sheila Parker, MBE

## **Sheila Parker and her son holding two of her England caps**

1970s

Courtesy of National Football Museum, on loan from Sheila Parker, MBE

## **Jules Rimet Trophy**

The idea of a global competition for professional footballers came from former FIFA President Jules Rimet. The original FIFA World Cup trophy, used between 1930 and 1970, was renamed in Rimet's honour in 1946. The gold-plated sterling silver and lapis lazuli cup depicted a winged figure, representing Nike, the Greek goddess of victory. It was awarded permanently in 1970 to Brazil, the first nation to win three times, so a second trophy was commissioned which has been used from 1974 to the present.

Courtesy of National Football Museum

## **'Ciao' mascot from the 1990 FIFA World Cup™**

Lucio Boscardin, 1990

National Football Museum

## **FIFA World Cup™ posters**

A major design element of the World Cup tournament is the poster, whose style and motifs capture and communicate something of the host nation's identity and aspirations. The first FIFA World Cup took place in 1930 in Uruguay, with 13 participating countries. In 2022, it will be held in Qatar with 32 competing countries. An official FIFA Women's World Cup has been running since 1991, although unofficial world championships date back to 1970. In the words of Uruguayan journalist and novelist Eduardo Galeano, the tournament has the power to 'pull tiny countries out of the shadows of universal anonymity'. Often taking on an iconic status, many World Cup posters have been designed by renowned artists and graphic designers.

1930 FIFA World Cup™ poster

Guillermo Laborde

David Pearson

1934 FIFA World Cup™ poster, reproduction

Gino Boccasile

Fondazione Museo del Calcio

1938 FIFA World Cup™ poster

Henri Desm  

National Football Museum, on loan from The Priory Collection

1950 FIFA World Cup™ poster, signed by the artist

J Ney Damasceno

National Football Museum, on loan from The Priory Collection

1954 FIFA World Cup™ poster, reproduction  
Paul Werner Weiskönig  
Fondazione Museo del Calcio

1958 FIFA World Cup™ poster, reproduction  
Bengt Karlsson  
National Football Museum

1962 FIFA World Cup™ poster, reproduction  
Galvarino Ponce  
National Football Museum

1966 FIFA World Cup™ poster  
National Football Museum

1970 FIFA World Cup™ poster, reproduction  
National Football Museum

1970 FIEFF World Cup poster, reproduction  
National Football Museum

1971 FIEFF World Cup poster  
National Football Museum, on loan from Gill Sayell

1974 FIFA World Cup™ poster, reproduction  
National Football Museum

1978 FIFA World Cup™ poster, reproduction  
Eduardo Lopez  
National Football Museum

1982 FIFA World Cup™ poster, reproduction  
Joan Miró  
National Football Museum

1986 FIFA World Cup™ poster, reproduction  
Annie Leibovitz  
Courtesy of FIFA ©

1990 FIFA World Cup™ poster  
Alberto Burri  
National Football Museum

1991 FIFA Women's World Cup™ poster, signed by  
players from the US Women's team and their coach, Tony  
DiCicco  
National Football Museum

1994 FIFA World Cup™ poster, reproduction  
SME Branding  
National Football Museum

1995 FIFA Women's World Cup™ poster  
National Football Museum

1998 FIFA World Cup™ poster  
Nathalie le Gall  
National Football Museum

1999 FIFA Women's World Cup™ poster  
Aldo Luongo  
National Football Museum

2002 FIFA World Cup™ poster, reproduction  
Byun Choo Suk and Hirano Sogen for Interbrand Newell  
and Sorrell  
Courtesy of FIFA ©

2003 FIFA Women's World Cup™ poster  
National Football Museum

2006 FIFA World Cup™ poster, reproduction  
WE DO Communication  
National Football Museum

Unofficial 2007 FIFA Women's World Cup™ poster,  
reproduction  
Andrew Lewis  
Courtesy of Andrew Lewis

2010 FIFA World Cup™ poster, reproduction  
Gaby De Abreu and Paul Dale for Switch  
National Football Museum

2011 FIFA Women's World Cup™ poster  
Opak Werbeagentur  
National Football Museum

2014 FIFA World Cup™ poster  
Karen Haidinger for Crama Design Estratégico  
National Football Museum

2015 FIFA Women's World Cup™ poster, reproduction  
Esme Sharples for Works  
National Football Museum

2018 FIFA World Cup™ poster, reproduction  
Igor Gurovich  
Courtesy of FIFA ©

## Media technologies

The ways in which people engage with the spectacle of football have changed dramatically over the past 150 years. The advent of new technologies, from radio and television to the internet and social media, has transformed and shaped how the sport is consumed and discussed. For a long time, the only way to follow your team was in person at a match or in newspapers that carried local results. Now, global audiences can follow their favourite teams or players around the world, 24 hours a day. The more people who watch, the greater the commercial value of football. In this sense, the saturation of media in the sport has accelerated its commercialisation.

A dramatic increase in football coverage on television occurred in the 1990s, when broadcasters began acquiring exclusive rights for certain leagues. Mass demand even has the power to influence the game itself. For example, matches are played at certain times of day according to the best viewing time for European television.

## Sports Pink, Eastern Football News, 24 January 1959

Norfolk News Company Limited, 1959  
National Football Museum

### Radio

The first live radio broadcast of a professional football match was aired in the UK in 1927. To aid listeners, commentators would describe where the ball was on the pitch using a numbered diagram, reproduced in 'Radio Times' magazine. Certain radio commentators' voices have come to define different eras of football, and the medium is still popular today. As the expectations of modern-day listeners have developed, commentators must prepare in ever greater detail.

Excerpt from live radio broadcast, FA Cup final, Blackburn v Huddersfield  
BBC, 1928  
Audio supplied by BBC Studios

'Radio Times', April 1934  
1934  
National Football Museum, on loan from The Priory Collection

## Nick Barnes' Sunderland AFC match-day books, BBC Radio Newcastle

Nick Barnes, 2000s—

Football commentator Nick Barnes covers Sunderland's matches for BBC Radio Newcastle. For each match, he creates a detailed, colour-coded two-page spread, covering background information on the opposition team, and updates of the action in real-time.

Nick Barnes

## Television

Television has created moments of collective experience never felt before. The 1966 FIFA World Cup was a major landmark, the first to be televised in full to a global audience. 1.12 billion people watched the 2018 FIFA World Cup final. Coverage of the women's sport is only slowly catching up, in part due to financial barriers. Women's games were first broadcast by the BBC in 2002, and the 2019 FIFA Women's World Cup final was watched by an average live audience of 82 million people.

- 1 BBC ITV Television Broadcasters Handbook for the 1966 FIFA World Cup™  
1966  
National Football Museum, on loan from Graham Lofting

- 2 BBC Radio Broadcasters Handbook for the 1966 FIFA World Cup™  
1966  
National Football Museum, on loan from Graham Lofting

- 3 Clip of television coverage from the 1966 FIFA World Cup™ final  
1966  
Duration 1:00  
Courtesy of FIFA

## Turnaround

Roderick Buchanan, 1999  
Duration 1:30:00

In this work, Scottish artist Roderick Buchanan screens two national broadcasts of an England V Italy match, but with their audio tracks switched. Buchanan's film reveals the power of national media to construct narratives and inflate rivalries, loyalties and prejudices. Although the commentators are describing the same event, their innate bias is exposed, revealing how it can shape our response to a match.

Courtesy of Roderick Buchanan

## Motion graphics

In the age of advanced technology and non-stop news feeds, fans expect a sophisticated and highly designed experience of spectacle. Where post- and pre-match analysis and on-screen graphics were once simple and optional, they are now a central journalistic tool. Brand and design agency DixonBaxi created a cohesive and dynamic motion-graphics system for the Premier League on-air, allowing information to be communicated in a clear and engaging way. Their 'field of play' motion system was inspired by the visual language of action on the pitch. Print journalism is striving to deliver a similar experience in a visually striking way.

Premier League TV Experience

DixonBaxi, 2016–21

Duration 3:34

Courtesy of DixonBaxi

Kick off, 'The Guardian', March 2018

2018

Design Museum

## Littlewoods Pools

Football betting has occurred ever since the game's early days. One of the most popular forms was the Football Pools, which emerged in 1923 with the Liverpool-based company Littlewoods. For more than 70 years, 'playing the Pools' was a football ritual for many families. At its peak, there were 15 million regular players, and major winners were covered by the press. The popularity of the Pools was reflected in the media coverage of matches.

- 1 Collection of photographs of Littlewoods Pools winners, Miss Goodwin, Mrs Piggott and Mr Tyvie  
1938
- 2 Counting floor at the Littlewoods Pools headquarters  
Undated
- 3 Littlewoods Pools coupon  
1966
- 4 Littlewoods Pools Ltd advert  
1968

All National Football Museum

## Kick It Out app

Kick It Out, Duration 2:44

Spectators can provide moments of celebration and lift an atmosphere, but in some cases, they can also be critical of their team and players. Discrimination in football, and wider society, is still an ongoing problem. Footballers continue to face abuse on and off the pitch, and are targeted for reasons such as their race, sexual orientation or gender. Awareness campaigns and organisations such as Kick It Out, exist to tackle discrimination and provide positive change, so that football can be an inclusive game for all.

## Zidane: A 21st Century Portrait

Douglas Gordon and Philippe Parreno, 2006  
Multi-channel projection, Duration 1:31:00

Capturing French-Algerian football star Zinedine Zidane in real time over the course of a single match, this feature film was shot on 17 synchronised cameras that follow the player's movements. Centring on the spectacle of sport rather than the game itself, the film captures the unsteady position of the footballer as hero. Zidane's memories and clips of concurrent news items from around the world are overlaid, adding to the psychological complexity of this cinematic portrait.

Courtesy of Studio lost but found, Berlin; Studio Philippe Parreno, Paris; Anna Lena Films, Paris.  
From the National Galleries of Scotland collection. Purchased 2006.

## Siegerflieger

Juergen Teller, 2014

Giclee prints

One of several projects dedicated to football by German photographer and football fan Juergen Teller, this series documents the photographer, his family and students through 2014, a year when Germany won the FIFA World Cup.

'Siegerflieger' literally translates as 'the victor's plane', the affectionate name given to the German team's customised aircraft. The images capture the deep and intense emotional investment unique to football fandom. The anguish, euphoria and even humour of watching a match on television is universal. It has become a way to connect loved ones and strangers, and to reinforce national identity.

From left

Siegerflieger Nos. 166, 179, 106, 143, 144, 124, 110

Courtesy of Juergen Teller

## A minute-by-minute illustrated guide to the 2019 FIFA Women's World Cup™

Minute Books, commissioned by It's Nice That

Illustrations by Charlotte Ager, Laylah Amarchih, Laurie Avon, Hannah Buckman, Sebastian Curi, Jiye Kim, Rebeka Lukošus, Luis Mazón, Sean O'Brien, Haley Tippman, Amber Vittoria, and Gracey Zhang, 2019

Minute Books is a performative press that uses illustration and design to present real-time responses to live events. The illustrations created during the event are scanned, processed and compiled into a book. Here, 14 illustrators captured every game from the 2019 FIFA Women's World Cup. The semi-final, in which England played the United States, attracted a television audience of 11.7 million, making it the most-watched programme in the UK at that time.

Courtesy of Minute Books

5

# Play

When stripped back, football is a simple game. When we engage with it, we are at play. Football allows for freedom, creativity and imagination, all luxuries we are afforded during childhood. When we play, these senses are renewed in us. Football possesses an extraordinary power to connect and bring people together. It allows fans to dream, inserting themselves into the field of play.

Design has created numerous opportunities for this beyond the game itself, through sticker collecting, tabletop games and e-sports. Some of these games are incredibly sophisticated, even allowing every movement of a star player to be replicated on-screen. Others are simple and require nothing more than coins on a table. Each of them allows people to be transported into another world. The transformative aspect of football is what gives it a unique role in society.

## Posts

Neville Golie, 1996-present  
Dibond prints

Posts is an ongoing body of work developed by South African artist Neville Golie over the last 25 years. A series of football photographs devoid of action, it is intended as a reflection on the universality of our desire to play, no matter where. Golie has said of the project, ‘with minimal means these goalposts... encapsulate our dreams and fantasies, and the uniqueness of “place”, in the language which is universally understood.’

Top row

Dunkirk, France; Villa Hayes, Paraguay; Skopje, North Macedonia

Bottom row

Magel Bel Abbès, Tunisia; Busan, South Korea; Khorixas, Namibia

Neville Golie

## Baines cards

John Baines, 1885–1920

Collectable sports cards, known as Baines cards, became popular in the 1890s in northern England, contributing to the flourishing of a collecting and trading culture that continues today. Bradford toy retailer John Baines was one of the earliest producers of these cards, which were printed in their thousands. Notable sportsmen were depicted on the front and adverts on the back, with cards covering both professional and amateur sports clubs.

National Football Museum

## Panini stickers

Italian company Panini began producing football stickers in 1961 with the release of a collection based on the top domestic league, Serie A. They published their first FIFA World Cup trading cards and sticker album for the 1970 FIFA World Cup in Mexico. The stickers were an instant hit with children, initiating a craze for collecting and trading them.

- 1 Panini sticker album, Mexico 1970  
Panini, 1970  
Alan Dein
- 2 Panini sticker album, Mexico 1986  
Panini, 1986  
Greg Lansdowne
- 3 Panini sticker album, FIFA Women's World Cup™, Germany 2011  
Panini, 2011  
National Football Museum
- 4 The Panini sticker factory in São Paulo during the FIFA World Cup™, Brazil 2014  
Tom Jenkins for 'The Guardian', 2014  
Courtesy of Tom Jenkins and 'The Guardian'

## Voetbalsterren sticker album, Netherlands

Vanderhout, 1969/70  
Alan Dein

## Bubble Gum cards, National Team Colours

Anglo Confectionery Ltd, 1969

These trading cards could be found in packets of bubblegum produced in the late 1960s by Anglo Confectionery in Halifax, Yorkshire. Several confectionery manufacturers released similar cards on a range of subjects, including football. Whole sets could be collected in categories such as 'famous international teams', 'world famous football clubs' and 'national team colours'.

Alan Dein

## Scrapbooks

These fan-made scrapbooks feature photographs and press cuttings relating to the maker's favourite club. In contrast to official publications, such as football annuals, they are highly personal compilations that illustrate the particular interests of individual fans.

- 1 Fan scrapbook, Preston North End

1950s

National Football Museum

- 2 Fan scrapbook, Arsenal

1971

Alan Dein

- 3 Fan scrapbook, Manchester United

c.1958

Alan Dein

## Oldest table football game, made in Preston

1884

National Football Museum

## 'The Valiant' Football League Ladders

1962

National Football Museum

## Matchbox football game, Japan

1930s

National Football Museum

## Blow Football

Blow Football is a tabletop game where the objective is to blow a small, lightweight ball into the opponent's goal. The game is often played with whatever materials are at hand, such as drinking straws and ping pong balls. Boxed versions of the game, available since the 1900s, typically contained a ball, two plastic goals and enough pipes for teams of up to three players.

From left

Blow Football

c.1925

National Football Museum

Men playing Blow Football

c.1950s

Courtesy of TopFoto

## Finga-Foota

Broda Jenkins, Brentford, c.1919  
National Football Museum

## Wembley boardgame

Ariel Games, 1950s

Launched in the 1950s, Wembley is a game that replicates the journey of football clubs to the FA Cup final. The game includes a series of cards, dealt out at the beginning, that represent each of the competing clubs. Star players can be bought to give extra goal advantage, and profits can be earned from gate receipts. Match winners are determined by the roll of a die to represent goals scored. Weighted dice with various number combinations are used to increase the chance of a team from the top division beating a lower-division team.

National Football Museum

## Penalty!

1950s-60s  
National Football Museum

## Kick

c.1910  
National Football Museum

## Subbuteo

Created in 1946 by Peter Adolph, Subbuteo is a tabletop game in which players simulate playing football by flicking miniature players with their fingers. Early Subbuteo sets contained wire goal frames, a ball and cardboard playing figures on bases made from buttons. In 1961, Adolph introduced the classic three-dimensional hand-painted 'heavyweight' plastic figures. Subbuteo offered hundreds of team kit designs and accessories, such as special figures for free kicks and throw-ins, TV cameras, and even a miniature model of Her Majesty the Queen to present the FA Cup to the winners as part of the game.

- 1 Tin of early Subbuteo figures  
Peter A Adolph/Subbuteo, 1949–50  
Tunbridge Wells Borough Council trading as The Amelia
- 2 Andrea Piccaluga, Subbuteo World Junior Champion  
1979  
Courtesy of Keystone Press/Alamy Stock Photo
- 3 England Lionesses Subbuteo Maingame  
Subbuteo, 2021  
Design Museum

## Button football set

Button football is a tabletop game popular in Brazil that uses concave buttons or discs to represent players on a field, with board dimensions and markings simulating a real football pitch. The first known rulebook for button football was published in 1930, and it remains a popular competitive game today.

Design Museum

## Advert for Subbuteo table football

1977

Duration 0:30

Courtesy of Subbuteo, used with permission of Hasbro

## Coin soccer

2012

Duration 0:43

## New Use for a Billiards Table

British Movietone, 1950

Duration 0:55

Courtesy of AP Archive/British Movietone

## Subbuteo Superheroes

Subbuteo Superheroes is a photographic series by artist Julian Germain that captures a team of personalised Subbuteo players painted by Nick Kidney. As a shy 13-year-old, Kidney transformed the figures into his favourite comic book superheroes, sharing them with Germain as an adult. Germain's images are reminiscent of the football cards and stickers of his and Kidney's youth, while the scale of the prints reflects the size of the heroes in the boy's imagination.

From left

No.2 Full Back. Steve Rogers aka Captain America  
Julian Germain (with Nick Kidney), 1997  
C-type print  
Courtesy of The British Council Collection

No.7 Left Wing. Peter Parker aka The Amazing Spiderman  
Julian Germain (with Nick Kidney), 1997  
C-type print  
Courtesy of The British Council Collection

## E-sports

E-sports (or electronic sports) refers to competitive video gaming. Football video games have existed since digital gaming entered the mainstream in the 1970s and have taken the form of arcade, console and computer games. They have developed from simple, pixelated figures with limited gameplay to sophisticated imagery with customised players whose environments closely simulate the real-life match experience. These games have enduring popularity for players in bedrooms, living rooms and even tournament venues around the world.

## Sensible Soccer

Created by Jon Hare and Sensible Software in 1992, Sensible Soccer was designed to be played at a frenetic pace, and fast became a favourite with gamers. It was the first football game that allowed the player to take a bird's-eye perspective on the pitch, and offered editable national, club and custom teams. The graphics now have iconic status among nostalgic games fans. Clip of Sensible Soccer gameplay for original Amiga version

Sensible Software  
1992

Duration 1:00

Courtesy of Jon Hare/Creative Commons 2022

Sensible Soccer, process material  
Jon Hare, 1992  
Courtesy of Jon Hare

## Clip of Football Champ (arcade version) gameplay

TAITO, 1990

Duration 0:18

Football Champ is an arcade game where the player can take the role of one of eight international teams. The game is completed when all seven opponents have been beaten. The game's makers introduced a 'super shot' feature in the final 30 seconds of a match, allowing a player to score an unstoppable goal. Football Champ was also notable for allowing players to use violence: punching, kicking, and pulling the shirts of their opponents.

Courtesy of TAITO

## Championship Manager

Championship Manager is an early example of the genre of football-management simulation games. It was first released in 1992, then rebranded as Football Manager in 2005, with new editions released annually. Players take on the persona of a club manager, controlling a team, developing tactics and signing new players. The database for the series has become one of the most sophisticated in the gaming world. The vast amount of data captured by the game is now a valuable resource for real clubs, which use it to scout players and opposition teams.

- 1 Championship Manager for Atari ST  
Paul and Oliver Collyer for Sports Interactive, 1992  
Design Museum
- 2 Player view of Championship Manager  
Paul and Oliver Collyer for Sports Interactive, 1992  
Courtesy of Square Enix
- 3 Football Manager 2022  
SEGA/Sports Interactive, 2021  
Duration 1:04  
Courtesy of Sports Interactive

## FIFA 22 Hypermotion overview video, gameplay

EA Sports, 2021

Duration 0:42

First released in 1993 as FIFA International Soccer, FIFA is one of the most popular video games of all time. It differentiated itself from other digital games by providing a three-dimensional representation of the pitch. Updated editions, released every year, strive to simulate a real football game with increasing accuracy. Real player data is used, including rankings of skills such as passing and dribbling, with a network of more than 6,000 data reviewers deployed to ensure this information remains accurate. Female players were introduced to the FIFA series in 2015.

Courtesy of EA Sports

## XSENS Motion Capture Suit

XSENS

EA Sports

## Goal Click

Goal Click is a global football storytelling project that sends disposable cameras around the world, encouraging people to tell stories about their lives and communities from their own viewpoint relating to football. Since 2014, the project has given a multifaceted view of humanity using a diverse range of storytellers. A core principle is self-creation: Goal Click gives everyone the same tool to put their vantage point at the centre of the world.

Instagram: @goalclick

Twitter: @Goal\_Click

Website: Goal-click.com

First column

Location: Gilgit-Baltistan, Pakistan

Photographer: Sumaira Inayat

Instagram: @\_sumairainayat @play.gbgfl

Sumaira Inayat is the co-Founder of the Gilgit-Baltistan Girls Football League (GBGFL), the first ever league for girls in the north of Pakistan. GBGFL has a mission to provide sports opportunities for girls alongside their education. The league covers all costs for the players, giving girls a platform to play without any financial barriers.

Second column

Location: Las Vegas, USA

Photographer: Judi Works (in association with San Diego Soccer Women)

Instagram: @sandiegosoccerwomen

Judi Works, 73, plays with The Sockers, an over-70s team from San Diego. The team was competing at The Las Vegas Friendship Cup, a tournament which brings together diverse teams from across the USA.

#### Third column

Location: Farum, Denmark

Photographer: Ásla Johannessen

Instagram: @aslajohannesen7 @fcnordsjaelland

Ásla Johannessen is a Faroe Islands international who was playing in the Danish top division for FC Nordsjælland (FCN). The club is part of the global Right To Dream Group, with academies in Ghana, Denmark, and Egypt focused on ensuring social and personal development of its academy players.

#### Fourth column

Location: Freetown, Sierra Leone

Photographer: Pastor Abraham Bangura

Pastor Abraham Bangura is manager of the Single Leg Amputee Sports Association (SLASA). Founded in 2001 at the end of the decade-long civil war in Sierra Leone, SLASA runs a football based programme for amputees. Pastor Bangura took photos of SLASA training on Lumley Beach in Freetown and also of teams from across Freetown taking part in an annual community cup.

#### Last column

Goal Click Refugees is a series launched by Goal Click and UNHCR, The UN Refugee Agency. The series is collaborating with refugees, asylum seekers, and internally displaced people around the world to document their stories through football in refugee camps and new host communities.

#### From top

Location: Amman, Jordan

Photographer: Abdelrahaman Hasan al Attar

Abdelrahman lives in the neighbourhood of Hashem Shemali, Amman, historically a Palestinian refugee area.

Location: Sydney, Australia

Photographer: Shegofa Hassani

Instagram: @shegofaaa @sydneygirlsunited @football\_united  
Shegofa Hassani left Afghanistan aged 9. She is a coach with Football United and manages an Afghan girls team called Sydney United Girls. Football United supports young people through football, leadership and coaching in Australia and Myanmar.

Location: New York, USA

Photographer: Samuel Gedeon

Instagram: @rooklynfootball

Samuel Gedeon is originally from Haiti. He plays with Brooklyn International Football Association, a Brooklyn-based organisation using soccer to help refugee, asylee, and immigrant youth connect and integrate into New York City life.

Location: Madrid, Spain

Photographer: Deisy Yourley Vélez Torres

Instagram: @deisy6223

Deisy Yourley Vélez Torres plays with Spanish NGO CESAL and in a league in Madrid for Club Fulanita de Tal. Before having to leave Colombia, she was called up to the Colombian national team, but her professional career was ended by a knee injury.

## Football Beyond Borders – On Play

Greatcoat films, 2022

Duration 04:00

The power of football is harnessed in many ways, fostering community spirit and influencing social change in order to help bring about greater equality and improved mental health. Football Beyond Borders is an educational and social-inclusion charity founded in 2014. It uses football to inspire and support young people who are disengaged at school to successfully transition into adulthood. The charity works with more than 1,500 young people every week across 92 programmes in London, Essex and the North-West of England. An expert team offers young people social and emotional learning sessions, 1–1 counselling support, reward trips and opportunities.

Commissioned by the Design Museum and Football Beyond Borders  
With support from the Lightbulb Trust

