

From modern to postmodern: The Development of Football Stadia in Europe

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ABSTRACT

Football stadia have continually evolved since the building of the first ‘modern’ stadia in Britain in the late 19th century to reflect the demands of spectators and governing bodies, as well as the increasing profile of football itself. Their changing nature, however, has become more acute in the last two decades as economic reasons, coupled with safety and security, have contributed to the abolition of many ‘modern’ stadia and, by implication, the development of more advanced arenas, described metaphorically as ‘postmodern’ stadia. Accompanying this ongoing process, various stakeholders, from governing bodies to managers and architects, have put more emphasis on fundamental issues. Such issues include innovative design, high standards of accessibility, safety, flexibility to adjust to all kinds of sporting and non-sporting events and above all, economic viability, all of which are addressed in the planning and operational process. This article examines the metamorphosis that historic and new stadia have undergone during the past years.

KEYWORDS: Stadia, Modern and Postmodern Football Stadia, Architecture and Economic Development of Stadia, European Football Clubs

1. INTRODUCTION

Major changes in the architectural and economical development of football stadia have been more acute in the last two decades in order to keep up with and reflect changes in society and, more specifically, the transformation of football. In this historical chronicle of stadium development, we examine the gradual transition of the late nineteenth century from unregulated grounds and the first 'specialized' modern stadium that emerged in Britain, to the late 1980s and beyond in which a new type of technologically and commercially advanced stadium has emerged, described as 'postmodern'.¹ Modern and postmodern stadium developments need to be linked to both the socio-economic conditions of the capitalist mode of production as well as to relevant sporting factors of every historical period. Different authors refer to the socio-economic principles underpinning the organisation of the capitalist mode of production as industrial, fordist or modern period. As a reflection of these principles and key sporting factors of those days, the first type of modern stadia was first developed in Britain, and later on in other countries. As John Bale argues, industrialisation throughout Western countries contributed to the diffusion of football, its stadia and development of new stadia architecture worldwide.² For example, Spanish clubs replicated the main architectural and managerial features incorporated in English football club stadia. The modern period has gradually witnessed a change in the role played by architects and clubs owners in the design and management of different types of stadium. The next stage in the organisation of capitalist production began in the 1970s after the first signs of crisis in the fordist mode of production emerged and led to what has been described as postfordist (or

postmodern and neo-fordism).³ The term 'postmodern' reflects some of the changes that have taken place in the areas of consumption, aesthetics, design, culture and lifestyles in Western societies and these are common in today's postmodern stadia.

Although football clubs and stadia continue to adjust to the changes in the mode of production and, to lesser extent, consumption, the first signs of the end of many modern stadia, and by extension, the emergence of postmodern stadia, were found in the late 1980s with the introduction of strict stadium safety regulations by governments as well as national and international governing bodies after a number of fatalities at European football stadia in the 1980s.⁴ Bale notes the arrival of the postmodern stadia in Britain "when the metal fences surrounding many grounds were taken down and scrapped"⁵. An array of initiatives has had profound effects on the architectural and managerial operations of many existing stadia and the shift to postmodern stadia. In Britain, the catalyst for this shift has been government intervention in the form of legislation and financial support to the football clubs and authorities. State intervention in this context has had the remarkable effect of transforming the financial fortunes of the sector. The improvements made to many stadia assisted in providing British football with a new image that has, in part at least, enabled the leagues to attract the attention of the lucrative broadcast sector. The consequence has been a virtuous cycle in which broadcast revenue has been used to improve the playing squad of many clubs and help fund the expensive building cost of stadium developments. However, in our opinion, the late emergence of postmodern stadia in Spain in the early 21st century, compared with Britain, has been linked more to the decline of revenues from TV rights coupled with the increasing financial demands of football clubs⁶.

In explaining the architectural and economic implications of the evolution of stadia over the last 100 years, this analysis builds on the review of existing material of scholars coupled with personal communications with specialist architects within the sports industry and managers of football stadia such as the director of the Bernabeu stadium, the General Marketing Director of Real Madrid, the chairman of Manchester United Disabled Supporters' Association (MUDSA) and the director of the FC Barcelona Centre of Documentation. Furthermore, evidence from news, including audio-visual recordings, official and unofficial reports and club websites have been relevant to building and documenting the analysis of this study. Finally, an important part of the analysis has been the "live" experience by the authors during stadium visits around England and Spain in the past years.

The remainder of this paper is organised as follows. The second section focuses on relevant architectural and economic factors associated to 'modern' football stadia from the late 19th century to the present. Section three addresses the main aesthetical and functional characteristics associated to postmodern stadia. The section that follows provides a detailed discussion of the characteristics associated with postmodern stadia.

2. UNDERSTANDING MODERN FOOTBALL STADIA

Much of the academic literature on modern stadia has traditionally been devoted to sociological and economic themes. These have included the relationships between stadia, cities and their citizens, the social profile of fans who attend live matches, the changes in attendances at football matches and the effects of spatial and social segregation inside the stadia.⁷ Other areas of interest have included the impact of stadia in their locality, the

study of the stadium legacy, particularly those built for mega events and the analysis of strategies intended to improve revenue from stadium operations. Only in recent years have studies integrated areas such as sport architecture and management in the study of the development of contemporary stadia, an interrelation that is central in within this paper.⁸

THE FIRST GENERATION OF FOOTBALL STADIA

There is an agreement that the first examples of ‘specialized’ modern football stadia were reputedly British in origin and emerged as a reflection of the socio-economic and political principles of the capitalist mode of production of the late nineteenth century as well as the evolution from folk games to modern sport. Indeed, most of the first generation of stadia was concentrated in Northern industrial towns (see Table 1). This process was clearly linked to the new conditions of production, which involved the building of factories, the expansion of industrialisation and urbanization of British cities. Added to this was the improvement in transportation, which involved the development of the first national railway network in 1860 that eased the travelling of supporters to other stadia in Northern towns. Other key factors were the establishment of the Football Association (FA) in 1863 and the inauguration of the first national league in 1888. All these factors proved influential in the national and international development of football and the building of the first generation of football stadia in Britain and elsewhere.

This evolution, however, was not straightforward. Initially, some British clubs decided to move from their location in unregulated “grounds”, characterised for being in landscapes that facilitated considerable interaction between players and spectators and was used for other sports such as rugby and cricket, to the first reputed ‘specialized’ football stadia.

Bale suggests that the use of “stadium” as opposed to “ground” could be argued to imply an up-grading of the game’s image and the need to confine football within certain spatial limits⁹. With regard to precursors, there are different opinions regarding the first documented example of “specialized” football stadium. It seems that Preston North End FC was the first in Britain and in the world to build the first modern stadium in 1875, after moving from a ground (Moor Park) to Deepdale stadium. This recognition should be awarded, according to others, to either the Everton’s stadium, Goodison Park or to the Manchester United’s Old Trafford.¹⁰ The pace of development of new stadia was clearly stimulated for the expansion of the British League. Thus, a series of specialized football stadia were built in many British cities before the 20th century (see Table 1).

As noted earlier, the expansion of industrialisation created the basis for the development of a new architecture of stadia and the export of the first model of ‘modern’ British football stadia. At the time, there were no guidelines or regulations to assist in the building of stadia. As a reflection of the principles of architecture of the day, the design and construction of these stadia were clearly influenced by factory building design which were constructed rapidly with a low budget and aimed at accommodating large crowds. The original design of these venues did include accommodation for different sports, but football became the dominant activity. Sheard describes earlier generation of stadia noting ‘in the earlier days, many stadia were designed for field sports, athletics and sometimes even cycling. Eventually, the tracks were removed and the stadia became single purpose facilities, serving for a single purpose crowd for a limited number of events each year’.¹¹ It goes without saying that the standards of security, comfort,

hospitality, access and sanitation for players, managers and spectators were elementary as the focus was less on comfort and design and more on maximising crowd attendance.

Their basic designs also reflected the operation and management of these earlier stadia. Not surprisingly, their limited use had an impact on the finances of clubs, with many clubs struggling to survive.¹² Only later did some chairmen, mainly local brewer businessmen in the British context, in collaboration with architects (and engineers) began to introduce certain architectural and managerial innovations into stadia to increase their building usage and their economic return. The overriding motivation was to increase the level of attendances at matches. To this end, clubs gradually improved their grounds, made of timber or brick construction, by incorporating basic elements such as pay boxes and turnstiles at the main entrances, perimeter fences around playing fields to separate players from spectators, changing rooms for players and officials, the building of the first permanent, though rudimentary, wooden terraces and later on, covered grandstands. These facilities contained the seeds of modern stadia in Britain and elsewhere. At the turn of the 20th century, European clubs, including Spanish, German or Italian, imitated the main architectural and managerial features of British stadia. There was not, however, a unique archetype of modern stadium. Indeed, the design of British stadia was distinctive when compared to German and Italian stadia models. British stadia were acknowledged, according to Inglis, for the ‘absolute predominance of terraces’ as well as the close location of spectators to the pitch¹³; characteristics that are still common in most British and some Spanish stadia. By contrast, German and Italian stadia have traditionally incorporated athletic tracks around the playing area which have reduced, according to

some, the 'crowd atmosphere'. The implementation of these practices had two implications: firstly, with the construction of terraces, the capacity clearly increased and secondly, it meant more revenues to the club for its operations. These architectural and managerial elements contributed to lay the foundations of modern stadia.

Football, meanwhile, was professionalized in England in 1885. Players became salaried and the transfers' fees for players increased substantially. The league fixtures continued to provide more interests for spectators and players, as well as a guaranteed income for the clubs.¹⁴ Under these circumstances, clubs had to offer financial incentives to keep their best players and sign others, which diminished their capital to either build new facilities or to improve their existing ones. The expansion of attendances, sometimes under limited control as shown by the fans that managed to get into the venue without tickets, impacted negatively on the physical structures of many of the wooden stands and hence compromised the safety of spectators. Besides, the use of wood as the main material in those earlier stadia proved to be particularly unsafe and was the cause of tragedies on earlier stadia. For example, 26 people died and 516 were injured at the newly built main stand at Ibrox Park in 1902 due to the lack of crowd control.¹⁵ There is a curious incident in the early professional life of Archibald Leitch, one of the chief architects and designers of British football stadia during this period, which deserves to be mentioned. The wooden stand at Ibrox Park was the first involvement of Leitch in football stadium design. After an inquiry to assess his responsibility on the collapse of the stand, the process finally found guilty the builder instead of Leitch for using a wood of poor quality (yellow pine) instead of the kind of wood (timber pine) detailed in the initial

design. As other tragedies proved, governing bodies and clubs showed little concern for the safety of spectators at stadia.

THE SECOND GENERATION OF FOOTBALL STADIA

The catastrophes of previous stadium design turned out to be a catalyst for improvements in the design and safety of the second generation of stadia. Safety regulations, therefore, were enforced. One of the recommendations that emerged centred on demolishing what was once the main construction solutions in earlier stadia (wooden terraces) and replacing it with reinforced concrete and steel. Gradually, concrete and steel stadia became the norm in the second and subsequent generations of European stadia. Also, Leitch went further after developing his own crush steel barriers, largely imitated, which proved to be efficient to control crowd circulation. Recommendations and new construction materials used brought a new quality of stadia in terms of safety and comfort, though the aesthetic development continued to be limited. However, in the absence of statutory controls with respect to stadium design, tragedies continued to take place in stadia over the years.

The profile of and attendance at football continued to grow around European countries. Despite this, many clubs still fell into financial difficulties.¹⁶ To counteract these difficulties, some British clubs engaged in commercial practices which included collecting money for attendances, selling programmes and offering basic hospitality services on match days. This commercial practice became common in other European grounds¹⁷, though the levels of revenue were quite low considering that prices were relatively cheap. As revenue generation becomes a central concern for most clubs, raising funds to enlarge and improve stands in existing stadia or to fund moves to new stadia proved to be a real challenge. As Inglis comments, the best two options found to raise

capital to finance new stadia in Britain were either to turn clubs into limited liability companies (e.g. clubs like Rangers or Celtic) or as in others (as Liverpool or Manchester United) to rely on the financial contribution and support of affluent people. In Spain, the development of the first generation of stadia took place later compared with Britain, with club members meeting most of the building costs. It was not until later that chairmen like Santiago Bernabeu, Vicente Calderon and Frances Miro were central to the building of stadia like Chamartin, Manzanares and the Nou Camp although the financing of the new arenas relied more so on member's contribution, banks loans and funds from public authorities.

One of the first benefactors behind the development of clubs and their historical stadia was John Houlding, who was also mayor of Liverpool, chairman of Everton and owner of the site where Anfield was finally built. Dispute over rental fees for the ground caused Everton to leave. As a reaction, a new team, Liverpool, was then created in 1884 to use Anfield. Likewise, Henry Norris, chairman of Arsenal and John H. Davies, the first chairman of Manchester United and also owner of the site, the Manchester Brewery, where Old Trafford was built became influential in financing both teams and funded their respective stadia, Highbury and Old Trafford. In terms of the building costs, Norris paid £125,000 to have Highbury constructed and Davies covered the £60,000 needed for Old Trafford. Real comparisons, however, are difficult to make with contemporary stadia; the construction costs of these stadia were considered quite expensive in those days. As Inglis notes, the construction of Old Trafford brought with it to Manchester United, many debts that took 41 years to pay off.

In this historical chronicle, different international and national wars over the modern period have had a profound effect on the structure and operation of many European stadia. Despite the critical socio-economic conditions of those countries involved in the conflict, the relaunching of football matches attracted more spectators and the number of clubs involved in the League expanded. This growing interest for football marked a new era for the development of the second generation of football stadia that emerged after the World War I.

Compared to earlier stadia, the use of reinforced concrete proved efficient in resolving most of the architectural and managerial problems of earlier stadia. With this construction solution, architects placed greater emphasis on increasing the capacity while providing more comfort, complementary facilities and safety for players and for spectators than the previous stadia. As Sheard put it, the design of new stadia 'sought to win back the hearts and minds of the general public by offering a level of comfort, service and view of the game that could compete with what was available in their own living rooms. They provided more comfortable seating, more seats under cover, toilet facilities for men and women and access to a basic range of food and beverage outlets'.¹⁸

In Spain, the stadium development and hence, the first signs of commercialisation of stadia did not emerge until the first part of the 20th century. The first specialized Spanish football stadia were built, but without too much economic viability at a time when the second generation of stadia were being developed in other European countries. Prior to the formation of the first Spanish League in 1928 with nine clubs, only few Spanish clubs were playing in their own stadia (Barcelona), while the rest were paying rent for their grounds (Real Madrid). After periods of tenancy at different grounds, Athletic Club

Bilbao was credited with being the first to build a modern football stadium (San Mames) in 1913 but with a modest capacity of 10,000. This stadium included two major stands, only one which was covered. Unlike the British case, the costs of San Mames (as well as other Spanish stadia) were mainly covered from donations from club members. As the second generation of stadia flourished in Europe, other Spanish clubs had to wait until the 1920s to move to their first modern and larger stadia. As many earlier stadia reached the limits of their capacity, clubs had an incentive to move. These included Barcelona FC who moved to Les Corts stadium in 1922 with a capacity of 30,000 (financial costs of 1.5 m pesetas (9,700 €) and Real Madrid moved from the 8,000 O'Donnell stadium to the new 15,000 Chamartin stadium in 1924.¹⁹ This relocation proved to be successful after the official opening of Chamartin with full attendance. However, the average capacity of most of these stadia and the level of income generated, which was limited to gate attendances, were still inferior when compared with the British experience. For the majority of Spanish clubs, this low revenue was supplemented by contribution from a small number of club members.

Football across Europe was halted by the Spanish Civil War (1936-1939) and to a much larger extent, by the Second World War. For instance, the Spanish conflict damaged stadia like Chamartin (Real Madrid) or Metropolitano (Atletico Madrid). Similarly, in Britain, important restrictions were imposed during the hostilities and matches did not restart until the 1946-47 season. Crowds were limited to half a ground's capacity due to evacuations procedures, while the bombs severely damaged many stadia like Old Trafford and Highbury, which were closed down for renovation for many years.

THE THIRD GENERATION OF FOOTBALL STADIA

With the War over, most European leagues returned with attendances rising. In Britain, attendances reached an all-time high (over 41 million in the 1948-49 season). Attendances of around 80,000 spectators were common during derby matches involving Everton, Chelsea or Manchester United. Britain extensively kept its earlier stadia with only three new ones built between 1945 and 1987²⁰ while other countries started to develop the third generation of 'modern' stadia. The next stage in the development of Spanish stadia took place after the Spanish Civil War when football reached an unprecedented growth in levels of attendances. Unlike British clubs' stadia which have been located in the same site since its foundation, a distinctive feature of Spanish clubs at that time was the relocation of stadia. For example, Barcelona and Real Madrid has moved several times to different grounds, sometimes on rental grounds, before moving to their current location, in the case of Barcelona to the Nou Camp in 1957 and in the case of Real Madrid, to the Chamartin stadium (later renamed as Bernabeu) in 1947. Clubs like Valencia, meanwhile, kept enlarging their stadium's (Mestalla) capacity.

In the early 1940s Real Madrid, with financial difficulties, did not enjoy good on-field performances and consequently suffered from low membership (around 6,254 in 1944). The then chairman, Santiago Bernabeu, was the mastermind behind the club transformation and the building of an iconic stadium as Chamartin (renamed as Santiago Bernabeu in 1955). After 30 months of work, Chamartin, designed by Alemany and Muñoz Monasterio, was finally opened in 1947.²¹ The 75,342 capacity Chamartin stadium incorporated double-decker stands, with 4,400 covered seats, 20,000 uncovered seats and standing room for around 50,000. To finance the 68 million pesetas (around

€408.688) building costs, the president embarked on a massive public subscription coupled with bank loans.

What clubs like Real Madrid, Barcelona or Manchester United have proved is that the continuous upgrading of their stadia to meet attendances demand, linked also to the success of their teams, has been influential for their further economic, social and sporting expansion. The building of the Bernabeu stadium and the subsequent sporting success of Real Madrid contributed to increasing the number of Real Madrid members from 6,254 in 1944 to 23,491 in 1948 (one year after the opening of the new Chamartin) and to 41,490 in 1951. Six years after the official opening of Chamartin, the addition of a third tier of stands brought the stadium capacity to nearly 100,000. Another club that typified this strategy was Barcelona FC after the construction of the then, (still is) , largest stadium in Europe, Nou Camp in 1957. However the construction costs of new stadia keep increasing substantially. In the case of the Nou Camp, the project was over budget. The original cost, equivalent to €50,000 then, was increased to around €2 million and the club asked members for money in advance with the rest coming from bank loans and from the sale of the previous stadium, Les Corts.

Generally speaking, the third generation of stadia can be characterised as incorporating further technological innovations in their design and management. They featured, in many cases, extra tiers of stands and new technological solutions (e.g. floodlights). John and Sheard summarises the main features of these stadia as having "...efficient management, attention to cleanliness and a widening range of spectator facilities for the whole family were on offer, and, most importantly, these were supplemented by

information and communication systems which purported to spread knowledge".²² If in the past, matches were restricted to daylight hours, the introduction of floodlights in many stadia in the 1950s allowed extension and diversification of the operations of many stadia. The astonishing level of attendances to football stadia continued to be the most important source of income revenue to British as well as Spanish clubs, but this was not enough to generate a substantial economic return. Admission prices began to rise a little, but still were very low²³.

Since the 1950s, most football clubs started to accrue additional revenues from television rights and merchandising. In Spain, the introduction of televised football in 1956 clearly had an impact on fans as they could now follow matches at home. As an example, the first televised match was Barcelona versus Real Madrid on 15th February 1956 at Nou Camp. Barcelona received 150,000 pesetas (less than €1000) for the television rights²⁴. By the end of the 1950s the sale of television rights, coupled with income from merchandising, became an important feature for Spanish clubs as a means of generating additional revenue. It was in the mid 1960s that hospitality services became a prominent feature. Manchester United was the first club who in 1966 identified the economic potential of executive boxes after the upgrading of Old Trafford by architect E. Atherden. What represented a distinctive service at that time has now been replicated by most European stadia over the years.

Over the next three decades (from the 1960s to the 1980s) attendances at English stadia continued to fall (from the 27.2 million in 1965 to the lowest figure of 16,5 million in 1985)²⁵ and by implication, the level of revenue generated by clubs. This financial crisis was not limited to England as most European leagues were also experiencing a downturn

in attendances and finance. Some authors remark that to counteract this situation, most football clubs increased ticket prices and exploited hospitality services on match days rather than improve income and provide services on non-match days as is more common nowadays.

3. THE EMERGENCE OF 'POSTMODERN' STADIA

Although it is difficult to pinpoint a single unique factor to explain the demise of the modern football stadia and the emergence of the postmodern stadia in Europe, the magnitude of tragedies inside stadia, partly associated to poor maintenance and designs, stewarding and policing, crowd management, inadequate segregation between rival supporters and the rise of violent behaviour in the 1970s and 1980s, negatively affected the profile of football. After all, these tragedies occurred inside stadia like Ibrox Park, Heysel, Bradford and Hillsborough in the 1970s and 1980s²⁶ forced football governing bodies as well as national governments to look for ways to improve safety inside and outside stadium limits. There is no doubt that some mistakes were made in the design and management of stadia in the past. To address these deficiencies, legislation emphasised the demolition of outdated stands and their conversion from standing to numbered seated accommodation and the removal of perimeter fences around the pitch to conform the high standards of spectator safety and crowd control. Circumstances that Bale viewed as “the beginning of the post-modern stadium when the metal fences surrounding many grounds were taken down and scrapped”²⁷. The initiatives have had the effect of reducing the capacity of most venues and the financial costs of renovating have been considerable in some cases while in others the reduction of capacity has forced the build of new stadia. Paradigm of the largest modernization process in Europe is found in Britain. The pace of

stadium modernization in Spain has been slower. The modernization process only took place due to the organization of the 1982 World Cup in Spain, with 17 stadia of major clubs like Real Madrid and Barcelona undertaking substantial improvements to host the tournament. The financial downturn of the Spanish economy meant that only the 26,512 capacity Nuevo Zorrilla was built²⁸. This modernization process of Spanish stadia was largely funded by public governing bodies, but left clubs with substantial debts. Only since the beginning of the 21st century have Spanish football clubs undergone the most profound period of change, described as Spain's stadia revolution²⁹, which will help to close the gap in their design and operation with British stadia-

4. DISCUSSION OF POSTMODERN STADIA

Our analysis shows that at the centre of postmodern stadia are fundamental functional and aesthetic elements such as innovative design, safety, comfort, hospitality, and access for all types of users, all multi-functional stadia and, above all, the increasing commercial development of both sporting and non-sporting areas³⁰. As Van Winkel remarks 'In the last two decades there has been a startling boom in the building of a new (fourth) generation of stadia and arenas in Western cities...The commercial exploitation of stadia started to become an end in itself'. Hence, this holistic approach emphasizes what we define as the changing nature of post-modern stadia

Contemporary stadia have also acquired a renovated profile as iconic buildings (e.g. the Allianz Arena in Munich designed by Herzog and DeMeuron) as central part to drive the regeneration of European cities (e.g. the Millennium Stadium, Cardiff; the Manchester City Stadium, the Stade de France, Paris, the Amsterdam ArenA and the new Wembley) or as tourist destinations (e.g. the Nou Camp, Bernabeu and Old Trafford) after recreating ‘unique’ old and new experiences and services to cater to wider audiences. In line with the metamorphosis of postmodern stadia, one of the objectives of the latest upgrading and expansion of the Bernabeu stadium (2000-2006) was ‘to modify the traditional mission and design of the Bernabeu stadium in order to transform it to a multidisciplinary business’³¹.

Unlike most of the modern period in which only a few major stadia were designed by outstanding architects like Pier Luigi Nervi (Giovanni Berta, Florence and Flaminio, Rome), Tony Garnier (the Stade Gerland, Lyon), the prolific Scot engineer, Archibald Leitch (over twenty stadia linked to the first and second generation of stadia, among others, Anfield, Goodison Park, Hampden Park, Highbury, Stamford Bridge, White Hart Lane or Old Trafford)³² or Günther Behnisch and Frei Otto (the 1972 Munich Olympiastadion), there is a renovated interest in the design as well as the operation of stadia towards the end of the 20th century inside and outside the architectural and sporting world. For example, new stadia built in the last decade, amongst others, the Arena Aufschalke and the Emirates Stadium (HOK Group), the Munich’s Allianz Arena (Herzog and DeMeuron), the State of France (Michael Macary) or the new Wembley (Norman Foster&Partners) have been regarded as “iconic” buildings³³. Governing body such as the UEFA awards five star status to these stadia that offer the most outstanding

standards with respect to capacity (minimum of 50,000 seated seats), comfort for all types of users, hospitality, technology, safety and access³⁴. So far, over twenty European stadia (e.g. Celtic Park, Old Trafford, Ibrox Park, Veltins Arena or Nou Camp to name a few) have already received this recognition.

As part of this discussion, it is relevant to remark that one of the main differences between postmodern and modern stadia is the symbiosis between innovative design and the commercial development. Indeed, the design of new stadia by outstanding architects is part of the marketing of the stadium itself (e.g. Allianz Arena designed by Herzog and DeMeuron). As a consequence, the role of architects has shifted towards a more entrepreneurial stance where architects with managers have to address one of the more-demanding design challenges which focus on creating useful and economically sustainable life to stadia considering the large investment required. According to Meis and Hallmark, the main concern of contemporary stadia 'is the assurance that the massive investment required to develop these venues is spent producing a building that is lasting, functional, self-sustaining economically and that meets the needs of the client and the community for much longer'³⁵. The economic viability of stadia becomes a fundamental principle in the current design and operation of stadia. As Sheard states, contemporary stadia have to be designed to maximize their operation.

Another key characteristic of postmodern stadia relies on extending their operations throughout the whole year and not just the traditional football calendar. To a large extent, the combination of economic factors like the high cost of upgrading historical stadia or the building of new ones³⁶ and the large running cost of football clubs have forced managers to explore alternative strategies for maximizing revenues from their stadia.

Hence, postmodern stadia reproduce similar complementary services found in entertainment centres. Postmodern stadia are now expected to draw large audiences and revenue from other sport events, political activities, leisure events, family shows and business activities on non-match days. This evolution is becoming, nowadays, more prevalent in European football stadia³⁷. Even historical stadia (e.g. the Bernabeu, Old Trafford or Stamford Bridge) have recently undertaken major renovation of their facilities to keep up with this managerial perspective. As the Director of the Bernabeu stadium offered a simplified matrix for understanding the current types of services offered on match and non-match days to two distinctive markets as traditional fans and corporations (interview, 22 July 2004). Real Madrid has been developing new services to attract different types of customers as shown in Table 2.

It goes without saying that the introduction of more technology clearly increases the final costs of stadia. Examples of the escalating costs of European stadia include the 52,000 Amsterdam ArenA built in 1996 at a cost of €127m has been clearly overtaken by new stadia like the 66,000 Allianz Arena built in 2006 at a cost of €340 million, the 60,000 Emirates stadium, home to Arsenal in London, at a cost of €85 million and the €300 m start up cost estimated for the construction of the new 75,000 Valencia stadium. On the one hand, there is a dilemma as to whether these advances are considered an investment which will generate returns or on the other hand, whether they are simply a financial burden. European stadia have also incorporated grand designs that include retractable roofs, which is probably the main technological innovation in European stadia (e.g. the Amsterdam ArenA, Cardiff's Millennium, the new Wembley and Veltins Arena to name

few), the changing colour of the façade and roof (which is a distinctive feature of the Allianz Arena), the removable pitch and stands (only available so far in the Stade de France, Veltins Arena and Vitesse in Europe), the use of the latest generation of artificial grass (Luzinky in Moscow), innovations in areas like telecommunications, graphics or video (large screens and monitors) and audio (more stadia have turned into ‘wireless places’), the introduction of chipcard payment systems to replace the traditional ticketing system (Veltins Arena or Amsterdam ArenA) and the commercialisation of non-sporting areas within stadia, previously unexploited in historic stadia (e.g. Emirates Stadium, Bernabeu, Amsterdam ArenA³⁸ or the new Wembley). Most of the technological initiatives mentioned contribute to fulfil some of the main demands of postmodern stadia.

As Table 2 illustrates, managers are developing new strategies to make stadia appeal to wider audiences. As such, stadia provide environments that recreate ‘unique’ old and new experiences directed at a wider spectrum of people from traditional fans to tourists and corporate clients. One of these is related to the emotional attraction that some historical European football stadia produce not only locally and nationally, but also internationally. This has so far led to the promotion of contemporary stadia as areas of experience and tourist destinations as part of what Gibson describe as ‘*nostalgia sports tourism*’³⁹. Indeed, tours around stadia and club museum of those clubs with a long established history coupled with an outstanding sporting performance engage the emotions of fans, supporters and consumers and motivate visits which yield new economic opportunities. The demand for these services has led some clubs to erect statues inside and outside their stadia to pay tribute to either famous players (e.g. John

Grey in Ibrox), managers (e.g. Shankly Gate and Paisley Gateway in Anfield or Matt Busby in Old Trafford), chairmen (e.g. Santiago Bernabeu in Bernabeu) or tributes to the significant historical moments (Hillsborough and Heysel tragedies at Anfield). These examples were gathered during stadia visits around Britain and Spain. Thus, visiting historical and new stadia in Europe represents a relatively recent –only evident in the last decade in Europe – but important commercial strategy for more clubs due to the synergy created with other associated hospitality and catering services offered in the stadium. In Spain, Barcelona FC in the Nou Camp on 24th September 1984 pioneered tours and visits to club museum. Since its opening, the Barcelona FC museum has become the most visited club museum in Europe. In 2005, the museum attracted over 1.1 million visitors⁴⁰. This model has inspired other European clubs like Manchester United, who in 1995 opened their museum and stadium tours, though surprisingly, Real Madrid has only recently offered a similar service which began in 2003. The growth and popularity of museum and stadium tour at Old Trafford, Nou Camp and Bernabeu stadia is depicted in Figure 1.

Despite there having been clear advances in stadium quality, safety, security, facilities and services in postmodern stadia compared to modern stadia, improving access in football stadia still remain a challenge for most European clubs. There are very good examples of accessible stadia like Old Trafford (Manchester United), the Allianz Arena (Bayern Munich) and the new Wembley. Manchester United continue to pioneer the introduction of services to meet the needs of disabled fans inside and outside stadia in Britain and in Europe. This club has been working in collaboration with MUDSA.

Founded in 1989, it was the first disabled supporters' organisation of its type in the UK to provide the best facilities and opportunities at Old Trafford for the disabled supporters of either home fans or visiting. The partnership between Manchester United and MUDSA has inspired other clubs to follow suit, and hence, has spawned the National Association of Disabled Supporters (NADS)⁴¹, which actively encourages the growth of a network of similar organisations, helping to improve the match-day experience of disabled people across UK and beyond. As chairman of MUDSA, Phil Downs, explains the latest upgrading of Old Trafford has allowed the club to improve substantially the existing facilities for disabled fans, 'The new quadrants (at Old Trafford) are about to come on stream with two wheelchair viewing platforms in each, providing an extra sixteen places', providing 120 places overall for wheelchair users and their personal assistants. Manchester United has gone further and beyond match-days offers as a distinctive service, the Ability Suite, for their disabled fans for educational purposes. For the near future, Downs appeals to the corporate social responsibility of football clubs by saying that 'we need to generate awareness within football not only in England but also in European clubs to improve their stadium facilities considering the social aspects that accessibility produce' (interview, 14 April 2007). In the same way, he remarks that "improving the accessibility to stadia in most European football clubs should be one of the main concerns of the next decade".

It must be stressed that over most of the modern period, most clubs adopted an approach to the design and operation of their stadia, which focused on maximising revenues from the operation of stadia on match days and from the broadcast sector. The opportunities

for increasing revenue from these sources are becoming limited, a situation that has led British and Spanish clubs to explore new marketing, sponsorship and heritage services to maximize the economic return from their stadia on match and non-match days⁴². In fact, the operation of stadia beyond match days now matters. In this evolution, we suggest that economic reasons have brought about the building of postmodern stadia and drawn their commercialisation into a more critical spotlight than even before.

5. CONCLUSIONS

The commercial opportunities of stadia has expanded, however, some questions about what will happen in the near future and how traditional supporters will react to the new configuration of stadia remain. Some supporters are happy with the evolution of stadia in terms of comfort and safety; however, most of the criticism comes from traditional supporters who question the main symbols and the 'atmosphere' associated with modern stadia. In the same way, part of the changing nature of stadia is also reflected in the changing profile of spectators. Some criticisms focus on the increasing segregation between traditional supporters and corporate spectators based on their economic spending capacity which is leading to an increasing 'disenchantment' from traditional fans. There is also an increasing likelihood that in the future corporate clients will be of greater economic importance compared with traditional fans. Meanwhile, it is important to find a balance between the commercial development of clubs and their stadia and the traditional cultural, social and symbolic significance of football and their stadia on the other. In our conversations with some architects one of the issues that arose was that the high standard of comfort inside the stadium does not seem to be compatible with the air, light and

ventilation needs of the natural grass; a problem that the majority of contemporary stadia have to face more often. Our analysis shows that there has been a transition from modern to postmodern and those clubs who have made this transition are exploiting commercial opportunities that were neglected previously by the industry. Postmodern stadia demand new approaches in their design and operation. As stated above, improving access to football stadia in most European football clubs should be a major concern for the near future. This and other challenges that new stadia have to cater for require a more interdisciplinary approach with architects, managers and owners working together to create more useful, accessible and economically viable stadia given the vast investment that are made.

Table 1.

		Main Architectural and Economic Factors of Stadia
M O D E R N	1st Generation (Late 19th Century to the early 1920)	<ul style="list-style-type: none"> ▪ Transition from grounds to specialized stadia ▪ Strongly influenced by Industrial Revolution and First National Railway Network in 1860 ▪ Prompted by emergence of FA (1863) and First National League (1888) ▪ First architectural and managerial developments found in British stadia ▪ Principles of Stadium Architecture based on Factory Building Design ▪ Stadia were more functional, aimed at accommodating large crowds, rather than aesthetic elegance ▪ Extensive use of wood as main construction material ▪ Basic levels in terms of comfort, security ▪ The main concern of architects and club owners was to increase the capacity <p>For example, in Britain, Deepdale, 1875, Preston North End; Goodison Park, 1892, Everton; Villa Park, 1897, Aston Villa; Ewood Park, 1890, Bolton Wanderers; St. James' Park, 1892, Newcastle United; Hillsborough, 1899, Sheffield Wednesday; Stamford Bridge, 1910, Chelsea FC; Old Trafford, 1910, Manchester United or Highbury, 1913, Arsenal, and in Spain Campa de Lamiaco, 1900-13 Athletic Bilbao; Velodromo Bonanova, 1899-1900; La Industria, 1909-21, Barcelona CF or Campo de la Avenida Toros, 1902-12, Madrid CF.</p>
	2nd Generation (Early 1920s to the end of the 1940s)	<ul style="list-style-type: none"> ▪ Bombs damaged severely stadia like Old Trafford and Highbury (World War I) and Chamartin, Metropolitano and Mestalla (Spanish Civil War) ▪ Principles of stadia architecture in new stadia: <ul style="list-style-type: none"> ▪ Wooden stands were replaced with reinforced concrete and steel ▪ Greater emphasis on increasing the capacity while providing more comfort, complementary facilities and safety ▪ Used primarily for football on match days, <p>For example, The Valley, 1920, Charlton Athletic; Selhurst Park, 1924, Crystal Palace; San Mames, 1913, Athletic Bilbao; Atocha, 1913, Real Sociedad; El Sardinero, 1917, Racing Santander; El Molinon, 1922, Gijon FC; Estadio San Juan, 1923, Atletico Osasuna; Mestalla, 1923, Valencia FC; Sarria, 1923, RCD Espanyol; Metropolitano, 1928, Atletico Madrid; Balaidos, 1928, Celta FC and Villamarín, 1929, Betis. Meanwhile, other major clubs kept relocating to new grounds (Real Madrid, O'Donnell, 1912-23; Ciudad Lineal, 1923-24; Chamartin, 1924-47 and Barcelona, Estadio Les Corts, 1922-1957.</p>
S T A D I A		

	<p>3rd. Generation Early 1950s to the end of the 1980s</p>	<ul style="list-style-type: none"> ▪ The majority of European countries, except Britain, started to develop the third generation of stadia ▪ New Rising in Attendance in Britain and Spain (over 41 million spectators in British League in 1948-1949 season) ▪ Principles of Stadia Architecture in new stadia: Incorporate further innovations in their design and operation. ▪ Extra Tiers of Stands, Introduction of Technological Innovations as Floodlights and Improvement of Management Efficiency, Cleanliness, Facilities and Information Systems ▪ The operation of many stadia continued to be limited to ‘match days’, but not generating a substantial economic return though tickets prices started to increase ▪ Launching of Television (first Broadcasted Matches) and Increasing Number of Alternative and Cheaper Leisure Activities ▪ Greater Development of Hospitality Services ▪ Violent Behaviours of some Supporters in the 70’s & 80’s and some tragedies took place in stadia due to Difficulties of Controlling Large Crowds (Ibroy Park, Burnden Park,...) ▪ Attendances Fall in decades (1960’s to 1980’s) <p>For example, in Britain only three clubs moved to new stadia between the end of the Second World War and 1987, while in Spain in the period 1939-70, eight stadia were built, including two of the biggest stadia in Europe: Rosaleda, 1941, Malaga FC; Riazor, 1944, Deportivo Coruña, Chamartin, 1947, Real Madrid; Nou Camp, 1957, Barcelona FC; Sanchez Pizjuan, 1958, Sevilla; Vicente Calderon, 1966, Atletico Madrid; El Sadar, 1967, Osasuna and Ciudad de Valencia, 1969, Levante. Relevant was also the largest modernization of 17 stadia due to the hosting of the 1982 World Cup</p>
<p style="text-align: center;">P O S T M O D E R N S T A D I</p>	<p>4th Generation 90’s-present</p>	<ul style="list-style-type: none"> ▪ National and International Football Governing Bodies and Governments themselves prompted Strict Safety Regulations in Stadia (inside and outside) <ul style="list-style-type: none"> ▪ Demolition of Outdated Stands, which leads to capacity reduction ▪ Removal of Perimeter Fences around Pitches ▪ More Numbered Seat Accommodation in Stands ▪ More Demanding Crowd Control & Evacuation Systems ▪ Capacity Reduction and Cost of Stadia Renovation caused Income Reduction from Entrance Tickets ▪ Increasing Need of New Income Streams to face Economic Situation ▪ Largest Modernization of British Stadia ever seen ▪ Principles of Stadia Architecture in new stadia: Interdependency between the design and operation of stadia. The main concern of architects and club owners go around increasing the standards of comfort, security, accessibility and above all, commercial development. ▪ Incorporate the latest technological solutions (as roof design, retractable roofs and pitches, artificial grass,...) leading by outstanding architects as part of the marketing process and to the differentiation of the product ▪ Acceptance of Non Match Days Concept in Stadia Exploitation: Everything is Possible in Stadia ▪ Their operation seek to attract new segments and also to virtual fans. ▪ Exploitation of Sponsorship, Marketing and Heritage Services as New Source of Incomes ▪ Valued as postmodern cathedrals of consumption, tourists attraction, leisure centres, business centres or icons of city marketing

A		<p>In Britain most of existing British stadia, (nearly 45) were upgraded over the years (e.g. Old Trafford, Manchester United (last enlargement and modernization)) while around 50 stadia have been built: 1997. Reebok Stadium, Bolton; Stadium of Light, Sunderland; 2000. Millennium Stadium, Cardiff, National Stadium; 2001. St. Mary's stadium, Southampton; 2002. The Walker stadium, Leicester City; 2003. City of Manchester stadium, Manchester City; 2006. The Emirates Stadium, Arsenal and 2007. New Wembley, National Stadium. In Spain, only five stadia were built between 1980-2001: El Sardinero, 1988, Racing Santander SAD; Anoeta, 1993, Real Sociedad; Coliseum Alfonso Perez, 1998, Getafe SAD; San Moix, 1999, Mallorca SAD and Nuevo Colombino, 2001, Recreativo Huelva SAD.</p>
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Table 1. The main characteristics of each generation of modern and postmodern stadia, including examples from Britain and Spain

Table 2.

	FANS	CORPORATE CLIENTS
MATCH DAYS	<ul style="list-style-type: none"> • Tickets • Season Tickets • Bars and Kiosks • Official Club Merchandise Shops 	<ul style="list-style-type: none"> • Match Day Hospitality Packages. • Area VIP • 250 Hospitality Boxes: 4.500 seats • Golden and Silver
NON-MATCH DAYS	<ul style="list-style-type: none"> • Guided Tour and Museum and Night Summer Guided Tours • Catering Services (Restaurant 57, Cafe Real, Asador de la Esquina) • Official Club Retailing Shops • Music Concerts 	<ul style="list-style-type: none"> • Business Areas • Conferences and Seminars • Shows • Presentations of Corporate Products • New Services

Table 2. Range of services, goods and experiences provided to different types of customers at Bernabeu stadium over the year

Source: Personal interview with the Director of the Bernabeu stadium on 22th July 2004

Figure 1

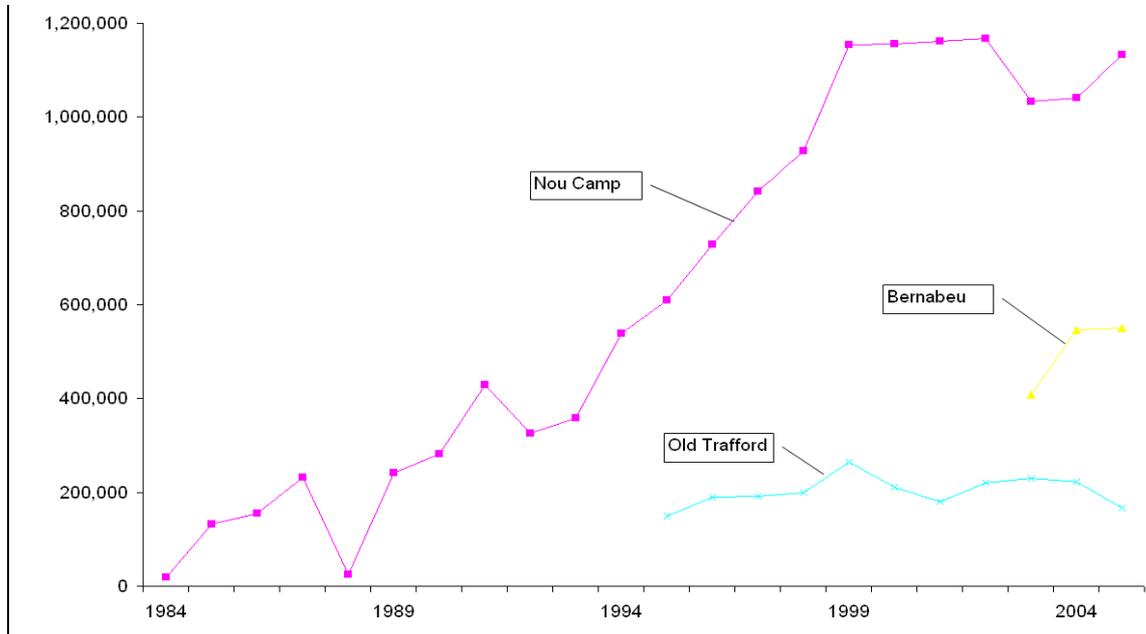


Figure 1. Annual visitors to Old Trafford, Nou Camp and Bernabeu museums and tours grounds

Source: Manchester United Football Club; The Director of FC Barcelona Centre of Documentation (March 2007) and the Director of Bernabeu stadium.

¹ In explaining the stadium development in Europe, Bale (1993, 2003) refers to four distinctive periods, while Sheard, *Sports Architecture*, refer as part of four generations. Beyond Europe, Stevens & Wooton, 'Sports Stadia and Arena: Realising their full potential', 49-56 relate to five eras in North America, named as first era (the classic ballpark), the second (the modernist super stadium); the third (the neo-classic ballpark); the fourth (the regenerated stadium) and the fifth (the millennium stadium).

² Bale, *Sports Geography*.

³ For a revision of the discussion of the new phase of capitalism and its effects, see, for example, Harvey. *The Condition of Postmodernity*; and Amin. *Post-Fordism. A reader*.

⁴ Bale, 1993, 2003; Inglis, 1989, 1990, 2005; John & Sheard, 2001; Heatley, *European Football Stadiums*.

⁵ Bale, 'The Spatial Development of the Modern Stadium', 130.

⁶ See more details in Campos, *Estrategias de Saneamiento en el Deporte Profesional*.

⁷ Different authors have studied social issues related to stadia in cities and their citizens (see Bale, *Sports Geography*; Bale, 'The Spatial Development of the Modern Stadium', 121-133; Williams & Giulianotti, *Game without Frontiers: Football, Modernity and Identity*; Mellor, 'The Genesis of Manchester as a National and International 'Super-Club'', 151-166. Unlike in the US, in Europe, few studies explicitly deal with the study of

the impact of stadia on European cities as Bale&Moen, *The Stadium and the City*. Stadia also form part of the regeneration process of more European cities in the last decade. For the Cardiff's Millennium and the City of Manchester Stadia impacts on both cities and their nearby neighbourhoods see Davies, 'Not in my back yard! Sports stadia location and the property market', 268-276. In terms of the legacy of Olympic stadia see Searle, 'Uncertain Legacy: Sydney's Olympic Stadia', 845-860 or the impact of stadia on cities and at regional level see Maening&Schwarthoff, 'Stadium Architecture and Regional Economic Development: International experience and the plans of Durban, South Africa', 120-129. Some strategies related to maximize usage and economic return from stadia have been more studied like the selling of naming rights. However, the thematization of stadia in Europe is still an under research area. Stevens &Wooton, 49-56; Smith, 'The Development of 'Sports-City' Zones: An Assessment of their potential value as tourism resources for urban areas'.

⁸ To analyse the role of architects in the design of stadia, see Inglis, 2005; John&Sheard, 2001; Paramio, '¿Hacia dónde se dirigen los estadios deportivos postmodernos?', 41-50; Van Winkel, *The Stadium: Architecture of Mass Sport*.

⁹ Bale, 2003, 133; Sheard, 2001, 1

¹⁰ In this discussion, Annett *et al.* 'El Desarrollo Espacial del Estadio Moderno de Fútbol: El Ejemplo Inglés', 62-66 cite Goodison Park, while Inglis, '*Engineering Archie*', 37 refers to Old Trafford as the oldest specialized 'football' stadia.

¹¹ John& Sheard, 3-5.

¹² Szymanski&Kuypers, *Winners and Losers. The Business Strategy of Football*.

¹³ Inglis, '*Engineering Archie*', 26.

¹⁴ Szymanski&Kuypers have studied the level of attendances over the years to British Football. In the first season, attendances totalled 612,000 spectators being Everton together with Preston the best supported clubs with an average of over 7,000 supporters per home game.

¹⁵ Paul Darby, Martin Johnes and Gavin Mellor, *Soccer and Disaster. International Perspectives*.

¹⁶ Babatunde Buraimo, Richard Simmons and Stefan Szymanski, 'Special Issues on the Financial Crisis in European Football: English Football', 29-46.

¹⁷ The first example of commercialisation of football stadia in Spain was found in Bilbao in 19 January 1902.

¹⁸ The rationale behind these architectural and managerial practices lies on the fact larger attendances at the end of the 1910s, ranged between 25.000 and 35.000 spectators in many English First Division stadia, provided more revenues for clubs (John&Sheard, 12)

¹⁹ Prior to their movement to Chamartin, Real Madrid was playing in a rented stadium (1.000 pesetas per month (around 6€) for eleven years (1912-23). Barcelona was instead playing in their own stadium, Estadio de la Industria, with a wooden grandstand for 1.500 spectators (see Epoca, 1994 and Libro de Oro del Real Madrid (1902-1952), 1952.

²⁰ See Aucok, '*UK Stadia development Trends*', 49-51.

²¹ Julio Gonzalez Tojo, "Nuevas Instalaciones del Real Madrid C.F", 90-97; See Libro de Oro del Real Madrid (1902-1952)

²² John& Sheard, 12

²³ Tickets prices after the Second World War in British stadia were low. Prices raised little over the following two decades. It was only after the inflation rose in the mid 1970s until the late 1980s when prices reflected this situation. Recently, there has been a massive increase in the cost of tickets (Heatley&Mason, 2004)

²⁴ El Mundo, 2006, *El Franquismo, año a año. 1959 Eisenhower trae a España el sueño americano*.

²⁵ These figures of attendances to Football League grounds include the four divisions. For a more complete analysis of attendances to English Football League grounds, see Symanski&Kuypers and Rollin&Rollin, *Rothmans Football Yearbook 2000-01*.

²⁶ For a complete revision of stadia disaster through history see Darby, Johnes and Mellor, 2005.

²⁷ Bale, 'The Spatial Development of the Modern Stadium', 130.

²⁸ See more details of the largest modernization process of Spanish stadia ever seen as part of the 1982 World Cup in Spain, in Rui-Wamba and Herreras, 'Informes de la Construcción. Estadios de Fútbol Copa del Mundo 82', 107-171.

²⁹ Campos 'La Revuelta de los Estadios', 6-13

³⁰ See this discussion in John&Sheard, 2001; Inglis, 2005; Paramio, 2004; Stevens&Wooton, 1997; Van Winkel, 'The Stadium: Architecture of Mass Sport'.

³¹ Gonzalez Tojo, 91

³² Gössele&Leuthäuser, *Architecture in the 20th Century*.

³³ Meis&Hallmark, 'The Architecture of Entertainment' in *Stadia and Arenas. Development, Design and Management*; John&Sheard, 2001.

³⁴ Two governing bodies as FIFA and UEFA have launched a guide for those who are involved in the design of new stadia or the upgrading of existing ones. See more details in Federation Internationale de Football Association (FIFA), *Technical Recommendations and Requirements for the Construction or Modernization of Football Stadia*.

³⁵ See Meis& Hallmark, 79; Fried, 2005; Sheard, 2001

³⁶ The reduction of capacity of stadia to adjust to the demands of UEFA and FIFA for playing international matches have negatively affected to the financial operation of many clubs. Similarly, the quest for higher capacity has led European clubs to consider moving to bigger stadia to increase the economic return.

³⁷ Markerink&Santini, 2004, Schultz, 'Professional Stadia design for the 21st century' in *Stadia and Arenas. Development, Design and Management*.

³⁸ Markerink&Santini, 2004

³⁹ Heather Gibson, 'Sport Tourism', 337-360.

40 Data gathered from the Director of FC Barcelona Centre of Documentation (March 2007)

41. For more details about accessibility on stadia, see The Football Stadia Improvement Fund, *Accesible Stadia*.

42. Relevant information about the operation of major football clubs and income from their stadia operation can be found in reports regularly undertaken by Deloitte (2005, 2007)

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