
“As an architect you design for the present, with an awareness of the past, for a future which is essentially unknown.”-Norman Foster.

DEDICATION:

This book is dedicated to my Mum, without whose support I could never have accomplished this, and to the rest of my family, for whom I work hard to make proud, THANK YOU.

DECLARATION:

This thesis is my original work and has not been presented in any other University or Institution for the purpose of awarding a degree to the best of my knowledge.

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This thesis is submitted in partial fulfilment of the examination requirements for the award of the Bachelor of Architecture degree, in the Department of Architecture and Building Science at the University of Nairobi.

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CHAPTER

INTRODUCTION

1.1 Background of Study

The relevancy of sports, in our modern society, is undeniable. In addition to the amount of money invested and equally generated by the events themselves, as well as their corresponding merchandise and sponsorship opportunities, sports occupy a great deal of time and space, both within the physical world and across all forms of analog, digital, and social media. They span geographical borders and traverse ideological boundaries, connecting people across both miles and generations. Their stories are told and retold, through the ages, in order to inspire pride, exemplify glory, and instill heartache, in a manner akin to the most renowned tales of old. Heroes and villains live on forever, as legends, as do the memories made each time we are lucky enough to bear witness to the competitive game.

The stadium, the modern-day temple of the sports world, is the focal point of so much that is tied to the greatness and majesty of sport, as well as too much of its controversy, in the greater context of our society. No other building type carries with it such an inherent and passionate degree of sentiment and speculation. Regardless of their level of awareness, everyone is influenced, in some way, by the construction, operation, and maintenance of these structures and their auxiliary facilities.

Sports architecture is becoming an ever-more important issue, within the evolving global landscape of the 21st Century. Therefore, it is vital for the architect to be cognizant of the depth of humanity's connection to sport, in order to understand the magnitude of his design decisions on the larger urban environment, and to be able to adapt to the needs of the industry, as a whole. This thesis is meant to study all three ends by discussing the past, present, and potential future of sports and sports architecture. Through a survey of mega-events and contemporary projects, it will be possible to examine historical precedents, as well as present trends. Hopefully, through understanding of the issues currently facing the industry, we may begin to consider further, more systematized methods of design and construction, with which we may be able to provide for a more universally-accessible model for future success.

1.2 Problem statement

The architecture of sports stadium has evolved considerably over the course of its history. From ancient gladiatorial arenas to domes and retractable roof-ball parks of the twentieth century, the stadium has become an iconic part of life in our modern society.

With the globalization of sports and sporting events, such as the Olympic Games and the World Cup, new and exciting opportunities are available to those who historically do not have the resources and infrastructure to support such efforts. However, despite the excitement and optimism that accompanies initial design and planning, the effective implementation of the necessary structures and support systems rarely produces the expected return on what ultimately represents a dizzying investment in time, money and labor.

In fact, operators have found that it is almost impossible to ensure the regular operation, maintenance and occupancy of these facilities, thus placing an overwhelming burden on the local community and country at large.

Currently the main sport facilities in the country have become white elephants after the main events that the facilities were designed for are over e.g. Moi International Sports Centre, Kasarani. In addition the sport facilities are faced with challenges of spatial under-utilization and poor maintenance. Sports Kenya, the body mandated with management of the facilities tries to encourage other secondary uses such as concerts, cultural events, trade and exhibition events to try and keep them on use. The problem is that in many cases the spaces in these facilities are not flexible and adaptable to accommodate these functions to make them sustainable during times when no sporting events are taking place.

The purpose of this thesis is to examine how stadiums have evolved, a review of selected mega events of the past years, as well as stadium projects, in order to fully reflect the magnitude and relevance of this problem, to identify industry trends and practical models, and to more clearly present the need for an alternative approach to design.

With the hope that problems currently associated with sports stadia architecture can be solved by the reconceptualization of 21st century sports facilities.

1.3 Aims and Objectives

The principle aim of this study is the goal to reduce the negative impact of such undertakings as building a stadium or hosting an international competition, and to aid in the realization of the inherent potential for positive change.

1.3.1 Research Objectives

- To investigate issues associated with planning and design of a sports stadium; specifically focusing on flexibility to accommodate different functions.
- In addition, the study will look into identifying emerging industry trends over time in terms of design, construction and operations.
- The study will present the need for an alternative approach to design, within the stadium typology by giving recommendations on which we may be able to provide for a Stadia model for future success.

1.3.2 Research Questions

- What are the challenges facing the planning and design of a sports stadium?
- What are the emerging trends in sports stadia architecture?
- What strategies can be used in the stadium typology in order to explore new spatial organizations that allow greater flexibility in stadium's form and function throughout its life?

1.4 Justification of Study

Currently in our country most if not all major stadiums have become white elephants after the main events that the facilities were designed for are over e.g Moi Sports Centr,Kasarani. In addition, the facilities isolate themselves from the social dynamics of the public realm and hardly do they meet the needs of the spectators coming for the sporting activities.These results into the stadia management boards struggling with operations and maintenance of the facilities.

Compared to other stadia around the world; Kenya stadia fall short of the standards set. This research will therefore particularly look at are what are the needs of the users and how to transform these facilities to be highly attractive to the users and ultimately being self-sustainable. It will also look into the emerging trends in sport stadia architecture around the world that would improve these monumental structures-the stadium

1.5 Scope and Limitation of Study

Sport activities are wide ranging in nature each requiring specialized equipment and facilities. Therefore the study will look at only outdoor stadia,the focus will be on mega event stadiums. Sports Infrastructure in the country is not that developed compared to other countries in the world.In addition Kenya has not developed major sport facilities in the recent years,therefore limits the choice of local case studies that the thesis covers. Hence,the study will focus on reviewing the existing major stadia within the city's capital.

1.6 Methodology

In carrying out the study Primary and Secondary sources of information will be used.

The Primary Source

This will be mainly through Interviews,Questionnaires and Sketches done by the author

The Secondary Source

This will be mostly encompass literature review:Journals,Past Theses done by different authors,newspapers and relevant books.

1.7 Structure of the Research Paper

The study is organised as follows;

- **Chapter one: Introduction...**

This chapter serves as the introduction of the thesis and highlights the problem statement, aims and objectives of the study, research questions, justification of the study, the scope and limitations and the research methodology used to undertake the study.

- **Chapter Two: Literature Review...**

Chapter two undertakes a literature review of relevant sources and knowledge based on the subject of stadia evolution in terms of design and construction.

It will explore the origin of stadia, from the early Greek stadiums to the Roman structures that can still be seen today. In addition, examine the stadia after the ancient eras; from the 5th century to the 19th century when the revival of the modern Olympic Games in Athens in 1986 provided a catalyst for modern stadia.

A review of modern stadia and examine how evolution of design have led to some of the most technologically advanced and unique innovations seen in stadia today.

It will also examine the current trends in stadia design and construction, in relation to the form and structure, material and general stadium usage.

- **Chapter Three: Research Tools And Methodology...**

Chapter three will highlight the methods of data collection, sources that the author engages in carrying out the research. It will include a brief explanation of why a chosen method will be used, how it will be executed and of what significance it will be to the author in getting the materials for study.

- **Chapter Four: Data Collection And Analyses.**

This chapter will basically contain detailed analysis of the research findings of the local case studies. The chapter will also contain a study of innovative modern stadia, to understand how they are developing based on the theories that have evolved over time. Findings and comprehensive analysis of the selected case studies will be documented.

- **Chapter Five: Conclusion And Recommendations**

This final section of the research thesis gives the deductions and recommendations of the study. It offers guidelines on design recommendations for future sports stadia.