RECONSTRUCTION OF CENTRAL MARKET, JOS;
Exploring Architectural Determinants to Urban Renewal

By

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A thesis submitted to the post graduate school, Ahmadu Bello University, Zaria, in partial fulfilment of the requirement for the award of the degree of Master of Science in Architecture.

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DECLARATION

I, KATAI, Elizabeth Agbmadalo hereby declare that this thesis has been authored by me and is a result of my research work under the supervision of Arc. Dr. W.B Qurix. It has not been accepted in any previous application for a higher degree.

All information obtained from other works and sources have been clearly distinguished and all references dully acknowledged.

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KATAI, Elizabeth Agbmadalo

CERTIFICATION

This thesis work entitled 'RECONSTRUCTION OF CENTRAL MARKET, JOS; Exploring Architectural Determinants to Urban Renewal' meets the regulations and requirements governing the award of the degree of Masters of Science in Architecture of Ahmadu Bello University, Zaria. It has been approved for its contribution to knowledge and literary presentation.

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DEDICATION

This thesis dissertation is dedicated to my late mum, Mrs. Maimuna Joyce Katai.

ACKNOWLEDGEMENT

My foremost thanks goes to God Almighty by whose grace, I've been able to complete this work. I am truly grateful.

Many thanks to my supervisors, Arc. Dr. W.B Qurix and Arc.H. Umeh for guiding me along the way. Your help was much needed as is more so appreciated.

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ABSTRACT

Urban renewal is the redevelopment/revitalization of blighted property of areas in a city. It's an issue currently faced by both developing and developed countries. The urban problem posed by the destroyed Central market Jos is one such example. Effectively carrying out the task of urban renewal like any other challenge requires team effort largely from professionals in the building industry. Thus, the architects' involvement and extent of architectural contribution needed for a successful scheme is a big part of any renewal scheme.

Unfortunately, the situation presently obtainable with regards to urban renewal is one where the architects' input has not been well recognised or appreciated and the depth of influence of an architectural contribution to urban renewal has not been explored.

An extensive study of the urban renewal process with the view of ascertaining the role and extent of contribution of the architect will be carried out. Also, through case studies of typical marketplaces in other urban areas and their operations, the major architectural factors relevant to the successful operation of the marketplace as well as the urban environment it influences will be highlighted.

At the end of the work, it is hoped that the findings will show that the architect is indeed a decision maker in the process of a renewal scheme and beyond that is a major influence through his/her designs on renewal. The findings will show that through the design (or in this instance, redesign) of a strategically located/significant architectural edifice, renewal of its urban environment can be achieved.

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CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

The activity of buying and selling dates as far back as the Neolithic age when man began co-existing. To facilitate all such activities, a designated place for buying and selling was created – the marketplace. A marketplace is a space, actual or metaphorical in which a market operates i.e. where goods and services are exchanged (Wikipedia, 2006).

The central market Jos (popularly known as Terminus market) was constructed in 1976. At the time, it was famed to be the largest marketplace of its kind in West Africa, thus its popularity as a tourist attraction and a monument to the city. The market structure and its operation created some urban problems which increased in magnitude over the years. These urban problems such as traffic congestions, parking inadequacies and circulation problems remained unsolved till the market was gutted down in fire in the year 2002. The incidence has created an opportunity to redress the situation. Most of the problems the marketplace experiences can be solved in a renewal scheme.

Urban renewal is the redevelopment of blighted property or areas in a city usually as a result of co-operative effort by government authority and private developers (Necent, 2006). Cities all over the world are embracing urban renewal as a strategy for curbing urban decay and decadence of the urban environment and because this problem is widespread, (it is prevalent in every functional city in one form or the other)it requires all hands to be on deck including the architects' to ensure its success.

The Plateau State Government intends to redevelop the marketplace and its environment in such a renewal scheme so as to revive its use for greater patronage and revenue.

1.2 PROBLEM DEFINITION

Urban renewal as a scheme rose to prominence after World War 2 in most industrialized cities of the world. Since then, the role of the architect has been vague and when defined, grossly undermined. This has been to the detriment of the scheme as a whole. In many countries, the architect is virtually uninvolved till during the last stages when architectural services are needed. At this point many mistakes have already been made and decisions taken which are not beneficial or consistent with the aims of urban renewal. The result of this is that the architect is called upon to give cosmetic treatment to others' decision. This is unfortunate because the critical issues are always at stake in the renewal of cities and architectural factors which the architect contributes could very well be the difference between a successful and an unsuccessful urban renewal scheme.

The problem statements are thus:

i. Architectural determinants that greatly influence the success of an urban renewal scheme are greatly undermined. This is seen firsthand in the case of the Jos Central market.
ii. There's no clearly defined role of the architect in urban renewal.

1.3 AIM AND OBJECTIVES

1.3.1 Aim

The aim of this research work is to study and define the role the architect and

architectural determinants play in urban renewal and to establish the extent and impact of such determinants using the marketplace as a tool for renewal.

1.3.2 Objectives

i. To highlight the Architectural determinants/factors that is crucial to urban renewal as a scheme.

ii. To study urban renewal strategies with a view of ascertaining the best strategy to solve the renewal problem on the study area.

iii. To highlight the role the architect plays in urban renewal as against the urban planner.

iv. To study successful renewal schemes and failed attempts to observe and note the discrepancy in factors considered.

v. To study the marketplace as an influential tool for urban renewal.

1.4 MOTIVATION

The main motivation for this work is the gaping need to define explicitly the role and the place of the architect in the urban renewal process. The place of the architect has largely been lost in the scheme of things, thus the inability to exploit fully the benefits of urban renewal. Also the need for an architectural solution to peculiar urban renewal problems such as the case in the terminus market (where a single architectural edifice influences not only its immediate built environment but also the entire urban environment around it).

1.5 JUSTIFICATION

The Plateau state government, in the recent past has signified their interest in the market by awarding a BOT (Build, Operate and Transfer) contract for its reconstruction. The

contract was however revoked. Since then, new proposals for the reconstruction of the market have not satisfactorily addressed the many problems the market faces and as such, none has been approved.

Since the destruction of the 'terminus market, no central market exists where all kinds of purchases can be made, only smaller, traditionally open markets which are inadequate in meeting the towns' needs. None of these markets have been able to replace the burnt market in terms of location, size, capacity or historical significance.

The solution to the urban problems being experienced in the study area depends on the successful redesign of the marketplace using parameters hoped to be obtained in the course of this research. The research will go a long way to ensure that mistakes made in the past are not repeated in the proposed redesign and construction of the marketplace.

1.6 SCOPE AND LIMITATIONS

1.6.1 Scope of the research

This research will include:

i. Studies and analysis of all measurable factors which positively or adversely affect the "urbanscape" and the built environment around the market and the extent of such an impact.
ii. Daily market operations and the problems associated with such operations
iii. Analysis of requirements and adequate appropriation of market spaces within and round the market structure.
iv. Careful review of urban renewal strategies with the aim of ascertaining which strategy or combination of strategies will effectively bring about the desired

renewal of the study area.

1.6.2 Limitations

Limitations to this research include:

i. Detailed documentation on the physical state of the market when it was operational and immediately after its destruction cannot be obtained as the market has undergone change (further deterioration due to weather and the aborted site work) within the time lapse till date.

ii. A significant number of the previous users of the market are no longer situated within the market premise and so the source of primary data collection is limited. Thus, the sampling frame for the research is in-exhaustive and incomplete.

iii. There are few similar markets (closed multi-storey markets) in the country to study as relevant cases.

1.7 RESEARCH METHODOLOGY

In carrying out the research for the design and reconstruction of the proposed market, the ensuing method will be employed:

Comparative Case Study Analysis

Case study analysis is a research tool that incorporates an examination and review of four or more empirical studies of marketplaces and their urban built environment. A meta-analysis of all the case studies in light of chosen study variables is used to empirically examine and understand the research problem and possibly proffer solutions. The case study method will involve;

Study and Documentation of Each Case to include visual assessment, pictorial documentation in form of photographs and drawings and a documentation of all data gathered on the study.

Study of Relevant Literature such as articles, journals, papers and publications written in books and posted on the internet pertaining to the case study and relevant to the research. By so doing, a clearer understanding of their limitations will be obtained and how best to overcome them.

Analysis of the Cases Studied: A meta-analysis of all the cases studied using common variables. Also an assessment of other important factors pertinent to the study will be carried out, such as the efficacy of the waste disposal systems used, the adequacy of parking facilities, the type of building materials used, the structural system used, the number of traders and users of the facility, the suitability of the market location and its impact on the traffic flow and surrounding urban area among others. This analysis will be done with a view to harness information which will be relevant in the proposed design.

Translating all Data Collected from studies and analysis done and applying them to the study area to proffer a solution to the research problem.

1.8 ARCHITECTURAL SIGNIFICANCE

The marketplace is one of the busiest areas in any community. Its purpose has simply been to provide a trading place for goods and services. In the recent past however, the marketplace has evolved to become a facility that serves many other functions such as

being a tourist location, providing entertainment and leisure activities, preserving historical sites and buildings among others. This evolution has made the marketplace even more popular and busier than ever. An efficient and functional market design and a well planned environment are thus necessary to satisfy all users of the market facility. This work is a significant leap towards actualizing this need.

This work will also contribute to the recovery of Jos towns' landmark with its peculiar visual identity and thereby restore it as a site worth visiting by tourists from within and outside the state.

Finally, this work will contribute to the upgrading of the urban landscape of the Jos Central Business District. It will give a 'face-lift' to the entire area and facilitate increased commercial activities which will yield economic returns to the state.

CHAPTER TWO

ARCHITECTURE AND URBAN RENEWAL

2.1 INTRODUCTION-URBAN RENEWAL

Urban renewal is defined as the redevelopment of urban areas that have become run down or impoverished, by demolishing or renovating old buildings or building new ones (Listokin, Burchell & Robert, 2006). It is also defined as the redevelopment or rehabilitation of real property in a city, usually as the result of a cooperative effort by private developers and local government. (Necent, 2006). Urban renewal thus involves the process of acquiring and redeveloping property for the purposes of increasing its profitability or utility. It may be conducted by government, private interests or a combination of the two.

Urban renewal evolved from urban planning. It began as an effort towards slum clearance in cities and so was only applicable in the housing sector. Urban renewal has however expanded to include all sectors of the building industry, particularly the commercial sector. Urban renewal has gained a lot of popularity in the last half of the 20th century for many reasons; chief among them is the economic benefits of renewal to any urban area.

It has been widely recognized that commercial, industrial and residential slums and blighted areas mean economic disaster and strangulation to the central city. Such areas constitute one of the greatest economic liabilities to any government. They mean inefficient land uses, traffic congestion, inadequate loading and parking facilities all of

which lead to a deterioration of business, high service costs and eventually low economic returns (Meyerson, Milgram & Wheaton, 1966).

In light of all these, present day renewal programs and schemes are formulated to eliminate blight and obsolescence especially in residential areas, to restore economic uses of land, to increase revenues from the commercial sector, to reduce the cost of city services and to arrest the downturn of businesses in the commercial districts in cities.

Other benefits of urban renewal include; improving the aesthetic quality of the urban landscape, sanitizing the environment for better health of the residents and the environment itself and attracting tourist interest especially where renewal involves preservation of historical sites and monuments or provision of rest and leisure spaces in the city e.g. parks and gardens.

2.2 HISTORICAL BACKGROUND

Urban renewal goes back at least to the rebuilding of Rome by Augustus. Modern attempts can be said to have started with late-19th century Paris and Baron Haussman (Wikipedia 2006). Paris was the cultural centre of Europe and one of the world's most developed cities. Nevertheless, the physical infrastructure of the city was failing in the face of increasingly rapid growth—as the effects of the Industrial Revolution took hold and combined with the economic impacts of war and social upheaval. From the 1850s into the 1870s, Haussmann supervised a program which demolished large areas of slums and narrow, crooked medieval streets, replacing them with new neighbourhoods, plazas and traffic circles, and the broad, tree-lined boulevards that are still the hallmark of Paris. His program also rebuilt other infrastructure and services in the city: railroad

lines and stations, sewerage, street lighting, regular collection of garbage, and large parks.

This new move was picked by the United States in the 1930's after the housing act of 1934 was established to improve housing conditions and standards. Subsequent housing acts (1937, 1949) provided huge sums for massive slum clearance and conversion of farmlands for residential purposes. Over the years, changes in government policies allowed private bodies to be involved in urban renewal schemes. In the United States, Pittsburgh, then known as one of the dirtiest and most economically depressed cities became the first major city to undertake a modern urban-renewal program in May 1950. Due to rising opposition to the demolition of houses and unwanted changes to many cities' historical buildings, housing policies were again changed. Focus was now laid on redevelopment of existing blighted areas or property rather than on demolition which rendered many homeless.

During the 1990s the concept of culture-led regeneration gained ground. This is a collaborative effort by the renewal authorities that allows input from the people in the community or area that is being renewed. The approach has become very popular in places such as the UK as a catalyst to economic revival in its surrounding neighbourhood and a tool to economic and cultural development. Today, urban renewal projects are approached with a more community-oriented mindset.

2.3 THE URBAN RENEWAL PROCESS

Urban renewal is a scheme usually carried out by the government through an agency established for this purpose or through the appropriate arm of government. The urban renewal process begins with the appropriate government authorities identifying an area

as blighted and thus, in need of renewal. An urban area is said to be blighted when it is in a severely spoiled or ruined state. Blight is the legal term given to a piece of property when at least four of eleven outlined criteria or factors for blight are met. These factors range from dilapidated buildings, to land title problems and collectively must be considered to be a threat to the health, safety, peace or welfare of a community (White & Mamet, 2004).

The process varies from place to place but the basic framework remains the same. The difference is due to the different government policies and laws binding such activities and the different hierarchy of authority through which such a scheme would pass to be effectively carried out.

A breakdown of the urban renewal process for most urban areas around the globe involves:

i. Identification and designation of blighted areas to be renewed. In some developed countries, these areas are marked by red-lining boundaries. The areas are identified by government. The community can however request for such an action from the government or they could give suggestions with regards to the boundary definition of the renewal area. The areas marked do not have to be blighted; they could simply be for service upgrading or even restoring parks, gardens and open spaces or for historic preservation.

Funds for the project is procured by the government sponsoring the project or by making the project open for financial partnership with interested private bodies wishing to profit from the project when completed. In the event where private sponsorship is involved, a body is set-up to oversee the entire renewal program and ensure its successful implementation. This body consists of representatives from the government, the community, the financial sponsors and all professionals needed.

ii. At this stage, necessary lands are acquired from land owners and property owners if private. This is usually done through a form of settlement where these owners are compensated financially for their property or land. In the United States, there is a law of eminent domain to take care of such situations. This law enables private property to be condemned or taken over for a necessary public project provided the private owner id justly compensated (paid fair market price) for the property. Closely related to this is the care and provision made for persons needing to be relocated from the area.

iii. The government chooses a renewal plan based on its suitability for achieving the desired goals and in line with the government policies and master plan of the area. At this stage, buildings are designated for rehabilitation, historic preservation, redevelopment, demolition and areas marked for upgrading.

Prioritizing the works with which to begin is determined by the extent of damage of each property or the degree of threat it poses to the community. Various proposals for the urban renewal plan are solicited from interested parties and the best plan for the area chosen.

iv. A social survey in addition to an environmental impact assessment of the proposed scheme on the residents of the area is carried out. The data collected is analyzed and the impact reported to the authorities in charge. The report of the social and environment analysis should also be made available to the public particularly to the residents of the area.

v. Detailed drawings, plans and documents on the renewal scheme are now prepared by the necessary professionals for the implementation of the project to commence.

A schedule for the proposed program with the intended time frame for completion and the financial implications is prepared. Here, the services of professionals such as the Architect, Quantity Surveyor, Structural, Services and Civil Engineers, Builders and Planning consultants will be required.

General information about the project should be made available to the public and forums created for their views to be aired.

2.3.1 Summary and analysis

Urban renewal now often employs a people-centred approach; thus the process of urban renewal tries to achieve its aims without sacrificing the lawful rights of any group or sector of the community. Public participation, suggestions and input is sought in every step of the process so that the public and community interest is well protected and represented. In situations where the scheme is a long term project or if a difficulty arises, the renewal strategy adopted is reviewed and updated from time to time.

At the end of the renewal scheme, the aim is for the redeveloped area to be more functional and the redeveloped property is leased out to private estate managers or directly to the public to recover the financial investments made and generate increased revenue.

2.4 AIM OF URBAN RENEWAL

In the post world war period, when urban renewal began to come into light, the goal of urban renewal was to replace slum areas in the city with new residential and non-residential units. The program came under criticism, however, as a strategy that

overemphasized demolition, often to the detriment of viable neighbourhoods and poor or minority residents. An amendment of the goal as well as the strategy used ensued.

The aim of urban renewal is to improve the quality of life of residents in the urban areas (Planning and Lands Bureau, Hong Kong, 2001). Urban renewal is primarily used to update and improve an areas' infrastructure and to provide incentives for desired development. This results in much larger scale of private investments than the public funds that were invested into the renewal scheme.

The main objectives of urban renewal include the following;

i. Restructuring and planning designated target areas;
ii. Designing more effective and environmentally-friendly local transport and road networks;
iii. Rationalizing land uses;
iv. Redeveloping dilapidated buildings into new buildings of modern standard and environmentally-friendly design;
v. Promoting the rehabilitation of buildings in need of repair;
vi. Preserving buildings, sites and structures of historical, cultural or architectural interest;
vii. Preserving as far as practicable local characteristics;
viii. Preserving the social networks of the local community;
ix. Providing purpose-built housing for groups with special needs, such as the elderly and the disabled;
x. Providing more open space and community/welfare facilities; and
xi. Enhancing the townscape with attractive landscape and design.

(Source: Urban Renewal Strategy, Hong Kong, 2001.)

2.5 STRATEGIES OF URBAN RENEWAL

Urban renewal employs various methods of revitalizing blighted areas or property. The strategy employed depends on the nature of the blight, the extent of the damage and the aim of the renewal scheme. These strategies include;

i. **Redevelopment**: The term redevelopment means 'to improve an area that has become run down by renovating buildings, making better use of wasteland, and encouraging inward investment' (Microsoft Encarta, 2006) Redevelopment in the building industry is a relatively new term. It is an all-encompassing term which involves a number of urban renewal strategies such as reconstruction, renovation among others. Redevelopment involves partial or total clearance of degenerated areas, replacing them with high standard buildings and facilities. This strategy almost always involves permanent or temporary relocation of persons affected i.e. the users of such facilities. The disadvantage of this is that a redevelopment is often more expensive than a new development as many more factors are involved in the process than in a fresh development.

ii. **Rehabilitation**: Building rehabilitation means to restore a building, or part of a town, to its former good condition. (Microsoft Encarta, 2006.) This strategy was one of the option opted for when massive demolition of blighted areas was opposed as a requisite in urban renewal. Rehabilitation is carried out on existing buildings which require only maintenance and does not necessitate a complete replacement or reconstruction to restore it to good working condition. The rehabilitation of buildings improves the built environment and reduces the need or urgency for redevelopment.

iii. **Preservation**: Also known as conservation, involves the protection, rehabilitation and maintenance of buildings or built areas for historic or aesthetic purposes. Governments, foundations, historical societies, private citizens and architectural preservationists have all made effort to ensure that historical buildings and sites worth preserving are not destroyed in the process of urban renewal. Such structures may be preserved intact or the exteriors of may be kept intact while the interiors are adapted to a new function. The rehabilitation of such historical buildings or sites can be in form of a restoration work. This involves the recovery of old buildings to their original condition by removing later accretions, recreating elements believed to have been lost and by reworking weathered surfaces. Conservation is a strategy in urban renewal applicable to sites and buildings of social, cultural, architectural and historical importance.

iv. **Upgrading**: This is a recent World Bank initiative. The approach was developed in response to the need for the most positive and appropriate renewal approach. Upgrading involves improving the quality, standard, or performance of entire neighbourhoods especially by incorporating new advances (Ojonugwa, 2005) Upgrading is often undertaken with site services such as water, sewage, roads, electricity and other services by the government or a public authority. Large scale urban renewal schemes usually incorporate this strategy.

v. **Reconstruction**: This is not a strategy of urban renewal per se but it is employed in the implementation of most of the strategies. It involves rebuilding

a structure, an area or an entire city usually from its remains. It is a term almost exclusively used for rebuilding of structures gutted down by fire or other such violent means such as natural disasters or war. Almost every war-torn city has undergone reconstruction to return the city to a functional state.

The choice of which strategy is best for any given situation depends on a number of factors such as the anticipated end product of the renewal scheme, the cost of each approach employed and the nature and extent of the damage or blight.

The choice of strategy employed should be chosen only after careful study of the residents of the area under consideration and the impact the renewal program will have on their socio-economic lives. In keeping in line with the aim of encouraging community participation in the renewal process, consultation with the representative of the community is often necessary before a decision is taken especially for renewal programs in residential areas. Finally, a calculation of the estimated cost of each strategy, in view of their suitability for the purpose of renewing the area under consideration is done and compared to help the governing authorities decide which strategy will be best employed.

2.6 PROBLEMS OF URBAN RENEWAL

Urban renewal, right from its inception has been a very controversial concept which did not meet total acceptance in many parts of the world. Some of the reasons the disclaimers of urban renewal hold against it are the new problems created in a bid to renew the urban environment. Some of these problems include:

i. **Displacement of persons**: This problem was the first to arise in the process of implementing an urban renewal scheme. Because the parts of the city that was blighted and needed renewal were the slum areas, the poor and low income workers were the group adversely affected in these schemes. A huge number of slum dwellers were displaced from their homes. Entire neighbourhoods were torn down in anticipation of new, tax-generating developments coming in its place. In Boston, one of the America's oldest cities, almost a third of the old city was demolished to make way for a new highway, low- and moderate-income high-rises (which eventually became luxury housing), and new government and commercial buildings. This problem is no longer prevalent as better approaches to urban renewal have been adopted. Moreover, urban renewal has since been reformulated with a focus on redevelopment of existing communities. Thus, over time, urban renewal has evolved into a policy based less on destruction and more on renovation, investment and community development.

ii. **Segregation**: This problem was peculiar to the United States of America due to policies enacted with regards to slum clearance and granting of housing loans. The housing act of 1934 was established to improve housing condition and standards. While it was designed to develop housing for poor residents of urban areas, that act also required cities to target specific areas and neighbourhoods for different racial groups, and certain areas of cities were not eligible to receive loans at all. This meant that ethnic minorities could only secure mortgages in certain areas, and resulted in a large increase in the residential racial segregation (Wikipedia, 2006).

The Housing Act of 1949 extended the provisions of previous housing acts by underwriting additional loans, but further restricted the types of loans that the government would guarantee. Loans for new housing would be made only for a single owner. This of course favored the high income earners who could afford this. Segregation continued to increase as communities were displaced and many African Americans and Latinos were left with no other option than moving into public housing while Whites moved to the suburbs in ever-greater numbers.

In 1964, the Civil Rights Act removed racial deed restrictions on housing. This led to the beginnings of desegregation of residential neighbourhoods in the States. As opposition grew, policies on urban renewal were changed. Subsequently, the Housing and Community Development Act of 1974 established the Community Development Block Grant program (CDBG) which began in earnest the focus on redevelopment of existing neighbourhoods and properties, rather than demolition of substandard housing and economically depressed areas.

iii. **Cost:** Redeveloping land is considerably more difficult and expensive than developing new property. Previously developed sites often lack necessary infrastructure, access and improvements to make them useable. Additionally these sites are often burdened with contamination from years of neglect or through prior uses. With so many problems plaguing such Sites, whatever urban renewal approach is employed, costs of execution are high. For any of the approaches adopted, partial or total demolition and site clearance is involved. This in itself is cost intensive.

There is also the cost of compensation to displaced persons in cases where massive slum clearance or relocation precedes the scheme.

The cost of urban renewal is often carried by the government authorities, sometimes in partnership with private bodies interested in the scheme usually for investment purposes.

iv. **Choice of strategy employed**: The choice of which strategy that will be best suited for a given situation is a function of a number of factors such as the extent of the damage or blight, the estimated cost of each approach being considered and the desired outcome of the renewal program. In times past, entire neighbourhoods and property have been bulldozed and replaced when all that was required was an upgrading or rehabilitation. In some instances, a combination of two or more approaches would be needed to effectively solve the existing problems.

v. **Public Participation**: At the inception of urban renewal, every decision taken with regards to any planned scheme was totally in the hands of the governing authorities. Urban renewal today works to revitalize communities within the existing built environment, thus, public opinion is not only solicited, but also acted upon (White & Mamet, 2004). Urban Renewal areas, the strategy to be employed and the specific projects being funded are conceived in consultation with citizen committees who represent a broad spectrum of community interests. In many parts of the world, public involvement is still quite limited or non-existent.

vi. **Social Losses:** As cities embark on urban renewal schemes, there is always the risk of those communities involved losing their originality and uniqueness. In many cases, renewal programs simply resulted in the destruction of vibrant—if run-down —neighbourhoods. The hubs of many communities have been destroyed for better, more revenue generating facilities. These centres and buildings of social, cultural, architectural and historical importance can no longer be reclaimed.

2.7 ARCHITECTURE AND URBAN RENEWAL

2.7.1 Historical background: Architecture is defined as an art and science of designing structures and their surrounding in keeping with aesthetic, functional and other criteria (Dictionary of Architecture and Landscape Architecture, 1999). Architecture is now seen and understood to encompass the totality of the designed environment including buildings, urban spaces and landscape. The architect is a professional who practices architecture. The architect has been involved with urban planning for centuries and, as urban renewal is a function of town planning, with urban renewal as well.

The influence of architecture in town planning dates back to when landscape architects planned layouts of cities. The nature of these plans evolved from rigid and symmetrical layouts popularly used between the 15th and 17th century to the more flexible designs which reflected individual beliefs and preferences and favoured more natural themes. These change revolutionaries the concept of landscape architecture by subordinating buildings to their environment and this in turn, resulted in a closer relationship between

landscape architecture and urban planning. It could be said that the design and planning of the cities by the architects brought and heightened the experience of the city to the people.

2.7.2 The Architects' role: Throughout the ages, three bodies/disciplines have been responsible for the building of cities; the king (now replaced by the development authorities and government), the architect and the common trend of the time, people and region. However, as the profession of architecture evolved in scope and content, the role of urban design moved away from the architect and was taken up by the town planners. Thus, while the place of the ruling authorities and the regional vernacular and needs of the people have remained constant as factors controlling/governing the development of cities, the place of the architect have more or less been usurped.

In the struggle to define the place of the architect, it seems that architects adopt one of two attitudes towards the complexity of urban renewal; the first being "only the architect is capable of leading the team" and the other being to back out completely from the field and leave it to the town planners (Crane, 2006). The result has been that the architect is called upon only to remedy an already bad situation- the product of others' decision making. This is unfortunate for there are earth-shaking issues involved in urban renewal, for one, Urban Renewal can be used as a means for structuring Urban growth especially in its immediate surrounding rather than allowing the city to respond to it. Architects need to become effectively involved in this emerging new realm of government-aided urban development and renewal.

The complete urban area would be a product of the combination of good architecture and town planning.

The role of the architect goes beyond design of the city but possibly orchestrating a multi-disciplinary team –a collaboration of engineers, landscape architect and town planners. This collaboration should be the hallmark of urban design with the architect as the head of the design team. Thus, the answer to the question of who is in the best position to bridge the gap and provide a balanced middle ground between the other two groups will be no other than the architect, and this for a number of reasons which include;

i. The town planners and policymakers are slow to understand or incorporate the design principle of respecting human needs in coordination with the functional needs of a city- a principle well understood by architects. Architects understand the human and physical environment can co-exist harmoniously especially on urban areas.

ii. Many cities already defined in their space, yet in need of renewal calls for the architect to play a greater role in leading multi-disciplinary teams to redesign these challenged urban areas. The architect provides the creative and social interaction needed between the planners and the community.

iii. Many historic areas are threatened by changing land use and pressure for development. Architects have the skills to assist in the preservation of historic areas/buildings. Indeed, when the renewal scheme is centred on a historic or monumental building in need of careful rehabilitation or restoration, the architect is most qualified professional to handle such work.

Summarily, the discipline of the architect is the most suited to translate the needs of the people , the urban areas and the authorities into design that does not only renew the urban environment but also keeps up with the ever-changing /kaleidoscopic nature of the modern city.

Prominent architects who planned cities include the ancient Roman architect Vitruvius Marcus Pollio, 15th century Alberti Leone Battista and 18th century John Nash. In modern times, renowned architects such as Frank Lloyd Wright, LeCorbusier and Kenzo Tange were all involved in city planning.

2.7.3 Summary and Recommendations: Urban planning is an offshoot of Architecture and thereby stands to gain a lot from the profession, particularly for such a delicate subject as urban renewal. At present, the role of the architect is in the design (or redesign) stage of a renewal project i.e. at the implementation stage. It ought not to be so. In order to get the best of any renewal scheme, the architect needs to participate in the following ways;

i. Be involved right from the onset of the renewal project i.e. in the advisory and decision making stages.
ii. Be actively involved in the design and implementation stages of the renewal process.
iii. Lead or work hand in hand with the leader of the team of professionals involved in any renewal scheme.

2.8 URBAN RENEWAL IN NIGERIA

The concept of urban renewal has only recently come into limelight in Nigeria. Before the advent of Democracy a scant ten years ago, little or nothing was heard or known about urban renewal and beautification in this country. It started in metropolitan Lagos with urban sanitation and the provision of drainages for the city roads. This continued till the scheme of Lagos slum clearance was proposed and came to operation in 1951 and 1955 respectively.

As in other parts of the world, urban renewal in Nigeria now covers a wider scope to encompass all aspects of revitalizing a city.

Nigeria has adopted a number of renewal strategies to curb urban degeneration in Nigerian cities. The strategies include; Redevelopment, Rehabilitation, Conservation/Preservation and the recent upgrading of site and services scheme. An alternative strategy that has been applied in Nigeria to curb congestion especially in the large cities is the development of satellite towns. These attempts until recently have largely been towards slum clearance of residential areas. In most states in Nigeria, a metropolitan or development board exists to cater for urban developments and problems within the urban centres. Examples of attempted urban renewal schemes in Nigeria include:

i. **Redevelopment of Lagos Central Area**: This was a slum clearance scheme attempted by the Lagos Executive Development Board (L.E.D.B) in 1955. It involved a phased demolition of about 28hectares of poor housing and redeveloping the land for commercial purposes and improved housing quarters. All the old and blighted buildings within the area were to be demolished except

those considered adaptable or judged worthy of retention by reason of their sound structural state. Provision was made in the new proposal for new roads and open spaces. The scheme failed in 1960 due to inadequate funds, inability to settle all displaced persons, problems of land acquisition and many other unforeseen problems which arose in the course of the implementation.

A similar scheme was carried out in Kaduna in 1977. It was aimed at the renewal of the slums in the Kurmin-mashi, Kabala west and Nassarawa areas. The scheme also involved massive demolition and also eventually failed as it met with stiff opposition from the residents of these areas.

ii. **Rehabilitation of Government Residential Area Ilorin**: This scheme was carried out in 1988. It involved the rehabilitation of bad roads and deteriorated recreational facilities, the reconstruction of drainage gutters, replanting of ornamental trees and generally improving the entire landscape of the area. Large plots were also subdivided for better management. This was more successful than the earlier attempts at renewal carried out which involved massive demolition of slums.

iii. **Rehabilitation of Ahmadu Bello Way Kaduna**: The aim of this scheme was to replace old sub-standard structures of thatch and mud which stood side by side with modern commercial storey buildings along Ahmadu Bello Way. The Kaduna Capital Development Board (K.C.D.B) came up with improved building standards which the property owners were directed to comply with through the redevelopment and in some cases, demolition of their premises. The program wasn't entirely successful as space was inadequate to meet the standards required by the development board. Also, many of the old buildings were structurally unfit

and remained so as just the façade of the buildings were modernized to conform to the standards set.

iv. **Bauchi and Imo State Site and Service Upgrading Scheme**: The Bauchi State scheme commenced in 1980. The focus of this scheme was towards the upgrading of unused lands to make them usable and also the upgrading of services within the built up areas. Thus, huge expanses of land was sub-divided into serviced plots, areas liable to flood was upgraded and made ready for use. This same scheme was carried out on a larger scale in Imo state.

v. **Development of Satellite Towns**: This strategy was applied in Lagos and then in the present capital, Abuja. Abuja was provided the satellite towns of Gwagwalada, Bwari, Karu among others. This was to prevent Abuja from getting too congested. These schemes usually fail as these satellite towns end-up experiencing the same problem they were created to solve. In Nigeria, the population explosion in major cities makes this problem difficult to solve.

In the more recent past, states such as Akwa-Ibom have done a lot to renew the urban environment of their state capitals. Past Governor of Akwa Ibom State, Obong Attah, an architect, designed the Master Plan of Uyo City and spear-headed the construction of the Ibom Plaza to add value to the aesthetics of the city. The Ibom Plaza, strategically located at the centre of the city by the Ibom Connection is the first port of call to any visitor to the State. It has a water fountain, a landscape of flowers and shrubs adorning the entire Plaza. It is equipped with constant power and water supply, state of the art floodlighting system, a flea market for petty traders and hawkers, shops, car parks, as well as footbridge that links the plaza shops and parking lots with the flea market area. The Ibom Plaza also has a digital giant screen which keeps the people of the State

abreast with events within the country as well as an amphitheatre. The project, apart from increasing the aesthetic value of the environment, has created job opportunities for hundreds of youths, one such group being the photographers who have taken advantage of the beautiful environment for photography purposes. Other business opportunities opened by this singular project are numerous. The project was described as the first of its kind in the area and one of the many projects transforming Uyo into a modern, workable city in Nigeria.

Likewise, cities such as Calabar have also undergone face-lifts as problems of waste disposal were tackled, bad roads rehabilitated and new developments built up in their commercial areas. Abuja has also been undergoing a kind of renewal, better described as a purge of the urban area by enforcing conformity to the city plan and building laws and regulations.

So far, urban renewal attempts in Nigeria have failed more than they have succeeded for the same reasons they have in other parts of the world. These reasons include;

i. Lack of proper consideration of the socio-economic characteristics of the residents of any area ear-marked for renewal.
ii. Financial inadequacies and miscalculations.
iii. Inefficient administrative and technical organization.
iv. Huge social and physical cost.
v. Low level of community participation and involvement.

The strategies of rehabilitation and upgrading have proved the most successful. A more careful consideration of all the hindrances encountered in the past and how best to solve them is needed for better success of urban renewal in Nigeria.

2.9 NEW DEVELOPMENTS IN URBAN RENEWAL

As the concept of urban renewal continues to evolve, new ways of improving the quality of life of urban dwellers are being developed. New developments in this regard include;

i. **Gentrification: Urban Gentrification** is a process in which low-cost, physically deteriorated neighbourhoods experience physical renovation and an increase in property values, along with an influx of wealthier residents who displace the neighbourhood's original inhabitants (Wikipedia, 2006). Sociologist, Ruth Glass coined the term in 1964.

Gentrification can integrate the positives of the old neighbourhood with the positives of the new residents of the area. Positive gentrification is a precarious balance between the newer wealthier residents and the older, poorer residents of the neighbourhood. Utilizing many community revitalization tools such as community input, community engagement, and interaction during the revitalization process can minimize many of the negative effects of gentrification.

ii. **Culture-led regeneration:** Regeneration means "to return from a state of decline to a revitalized state" (Microsoft Encarta, 2006) During the 1990s the concept of culture-led regeneration gained ground. Here, renewal is carried out around a cultural or tourist centre so tourism is attracted. Examples of this approach of urban renewal include Temple Bar in Dublin where tourism was attracted to a bohemian 'cultural quarter' and Bilbao where the building of a new art museum

was the focus for a new business district around the city's derelict dock area. The approach has become very popular in the UK due to the availability of lottery funding for capital projects and the vibrancy of the cultural and creative sectors.

CHAPTER THREE

THE MARKET AND URBAN RENEWAL

3.1 THE CONCEPT OF THE MARKETPLACE

Man is a social being, one who needs others to survive. As early man began communal living, diverse communities were formed. It was then discovered that various people had skills, services or goods which the other needed or wanted. A means of exchange of these commodities was sought and trade by barter began. Transactions were made by exchange of goods, services or skills as agreed upon by the parties involved. A designated place where such business activities could be carried out was created. Thus, the concept of the market place evolved. A marketplace is the space, actual or metaphorical, in which a market operates (Wikipedia, 2006).

The marketplace is usually centrally located with routes leading to and from every part of the town. It is also located within close proximity of other civic and social centres. In times past, the marketplace served as both a commercial and a social centre. In many towns, the marketplace doubled as the town square. Thus activities in the marketplace had a wide range which included buying and selling, religious meetings and festivals, social gatherings and entertainment. This concept of the market as more than an economic function has been reborn and is fast gaining ground in many parts of the world.

Some markets operate only on certain days; others deal only in specific commodities or trades. The size of the marketplace is dependant on the size of the community or town and on the variety of the commodities being offered for sale.

3.2 DEVELOPMENT IN THE MARKET STRUCTURE

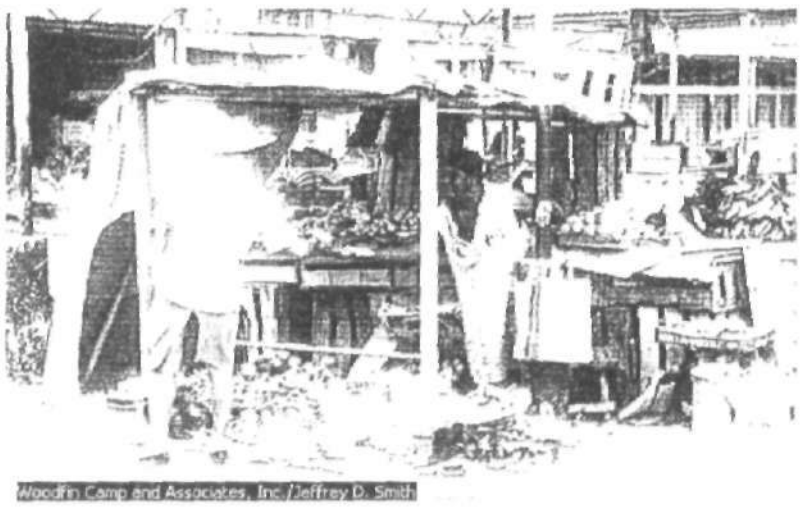
While the activity of buying and selling is as ancient as Neolithic times, the concept of an organized marketplace as is known today can be dated to comparatively recent times. Development in the market structure can be broadly categorized in three stages:

3.2.1 The traditional open market: Also called street markets. This is the commonest of all the market types. Here, traders set up their wares on stalls or mats and buyers browse the merchandise in an open marketplace. This kind of market is very old, and countless such markets are still in operation around the whole world. Traditional open markets are located at the city centre, town square, along major streets or in the commercial district of the town.



A typical open market in Chad Republic, Africa (Source: Microsoft Encarta 2006)

In the USA, such markets fell out of favour, but renewed interest in local food has cause the reinvention of this type of market, called farmers' markets, in many towns and cities. In continental Europe, especially in France, street markets, as well as covered marketplaces where merchants have permanent stalls, but not entire stores) are commonplace. Both resellers and producers sell their wares to the public.



An open-air market-stall in Saint John's, the capital of the Caribbean island-state of Antigua and Barbuda. (Source: Woodfin Camp and Associates, Inc./Jeffrey D. Smith)

3.2.2 Modern closed markets: The earliest known of these types of markets is the Greek agora and the Roman forum.

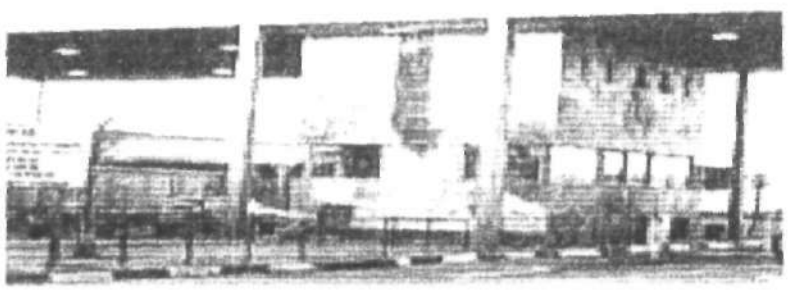


The remains of the Agora, Athens. The 5th-century BC Temple of Hephaestus stands on a hill overlooking the agora. (Source: Microsoft Encarta 2006.)

The forum in ancient Rome was a public square or marketplace in the city where business was conducted and the law courts were situated. The agora in Athens, Greece, built in the 6th century BC, was an open square bordered by public buildings, including

law courts and shrines, and served as the political and commercial centre of the city. (Bregman, 2005).

Closed markets developed from the traditional open markets which grew in size such that they became permanent institutions comparable to the modern shopping malls.



Entrance to the new Johannesburg produce market, Soweto (source:www.sowetoproducemarket.com)

One example is the huge Seventh-Kilometre Market near Odessa, Ukraine. Indoor multi-vendor shopping is thus not a recent innovation. Other examples include the Oxford Covered Market in Oxford, England which was officially opened on 1 November 1774 and is still going strong today. The Burlington Arcade also in London was opened in 1819. The Arcade(a specific type of shopping mall consisting of a building or set of buildings with interconnecting walkways enabling visitors to easily walk from store to store) in Providence Rhode Island introduced the concept to the United States in 1828.

The central market, Jos can be categorized as a modern closed market.

3.2.3 Shopping malls, plazas and complexes: A further development of the closed market is the shopping mall. A shopping mall is a pedestrianized shopping area with enclosed walkways in a town. (Microsoft Encarta, 2006). It can also refer to a collection of shops all adjoining a pedestrian area that allows shoppers to walk without

interference from vehicle traffic. Mall is generally used to refer to large shopping areas, while the term arcade is used to refer to a narrow pedestrian-only street, often covered or between closely spaced buildings.

The shopping mall evolved as a result of many city dwellers choosing to live in the suburbs. The shopping mall is filled with department stores, specialty shops, fast-food franchises, and movie multiplexes. In malls, purchase of food, clothing, and entertainment can be carried out in an isolated environment surrounded by parking lots. Malls can be classified into regional and super regional malls, mega malls, strip malls, fashion malls among others.



Pitt Street Mall, Sydney, Australia (source: en.wikimedia.org)

Mega malls are very large shopping malls.

Regional malls were built in the 1980s and 1990s. A regional mall is a shopping mall which is designed to service a larger area than a conventional shopping mall(Pocock, 2006) As such, it is typically larger, and offers a wider selection of stores. Given its wider service area, these malls tend to have higher-end stores that need a larger area in order for their services to be profitable. Regional malls are also found as tourist

attractions in vacation areas. Currently, planning regulations prohibit the construction of any more regional malls.



Cevahir Mall, Turkey, seen here with its six floors. (Source: en.wikimedia.org)

Super-regional malls are usually shopping centres with over 1 million square feet of retail space, and which serve as the dominant shopping venue for the region in which they are located. In many cases, regional and super-regional malls exist as parts of large superstructures which often also include office space, residential space, amusement parks and so forth. This trend can be seen in the construction and design of many modern super malls such as Cevahir Mall in Turkey.

A strip mall (also called a plaza) is a shopping centre where the stores are arranged in a row, with a sidewalk in front In the United Kingdom they are called "retail parks" or "out-of-town shopping centres" (Hartwick, 2004). Strip malls are typically developed as a unit and have large parking lots in front. They face major traffic arterials and tend to be self-contained with few pedestrian connections to surrounding neighbourhoods.



Strip mall from the 1950s at Whitestown, New York. (Source: www.easternct.edu.)

In the U.S. and Canada, strip malls usually come in two sizes. The smaller variety is more common, and often located at the intersection of major streets in residential areas; they cater to a small residential area. They are service-oriented and will often contain a grocery store, video rental store, dry cleaner, small restaurant, and other similar stores. Pharmacies, gas stations, banks, and other businesses sometimes have their own free-standing buildings in the parking lot of the strip centre. The other variety of strip mall in the U.S. has large retailers as the anchors, such as Wal-Mart or Target. They attract and cater to residents of an entire population area. There are typically only a few of these types of strip malls in a city, compared to the grocery store-anchored strip mall.

Strip malls vary widely in architecture. Older strip malls tend to have plain architecture with the stores arranged in a straight row. Newer strip malls are often built with elaborate architecture to blend in with the neighbourhood or be more attractive. In some cases, strip malls are broken up into smaller buildings to encourage walking. Sometimes the buildings will wrap around the parking lot to hide the parking from the road or residential areas (Ngo-Viet, N., 2002). The first shopping centre (strip mall) in the United States was the Roland Park Shopping Centre in Baltimore, Maryland (1896).

3.3 THE ARCHITECTURE OF A MARKETPLACE

The architecture of a typical marketplace regardless of type, size, or location is built around the customer i.e. to appeal to the market users. The structures consist basically of individual shops or stores with a common passageway or access area linking them all. There's also usually a rear entrance for deliveries.

The individual shops use as much visual appeal as possible to attract customers. Hence, goods are displayed on shelves or stacked decoratively, glass display windows used and so on. Over the years, methods and styles have improved and taken advantage of the

available technology so lights are manipulated for the desired effect and sounds are also used.

Distinguishing characteristics that make up the architecture of marketplaces include;

Visual appeal: marketplaces are designed to capture interest, to be places of appeal to all the senses. Thus every shop is designed to have direct visual relationship with the market-user.

Location: goods and services are located within easy reach of the customer. Strategic locations for instance along the major passage way, are struggled for, hence the constant "fight" between hawkers and legal shop-owners.

Planning: Goods and services related or similar are bunched together, also to improve the shopping experience for the market user among other reasons.

Circulation: marketplaces are designed such that everywhere is linked. The marketplace is one big community. Hence the logic of marketplaces being held in squares or around a circular market centres in times past.

The architecture of marketplaces has evolved quite dramatically over time but the primary concepts still remain the same. Whether it's a traditional open market or a mega mall, they all are designed to appeal to the market user, to facilitate a pleasurable market experience, to be within the closest proximity and most advantageous location to the market user and achieve the best circulation network among the various market sections.

3.4 PROBLEMS RELATING TO MARKET OPERATIONS

Certain problems are observed to be peculiar to the marketplace. These problems include:

3.4.1 Planning problems: The design and planning of marketplaces is a challenge because consideration has to be given to the various users of the facility. The fact that most marketplaces are located in the central business district of cities exposes them to the problems faced by such areas. There is usually congestion caused by the high density of buildings, narrow streets with more vehicular traffic to cater for, higher demand for parking areas, incompatible land uses, problems of access to the marketplace among others.



A busy marketplace in Jos, Nigeria. (Source: Author's field work.)

With all these problems spilling over from the surrounding area, the marketplace experiences overwhelming difficulties in planning to satisfy the pedestrian, the motorist, the shop owners, and other market users.

For the pedestrian, access into the marketplace and adequate circulation space (walkways and streets) are of foremost concern. For the shop owner, easy delivery of

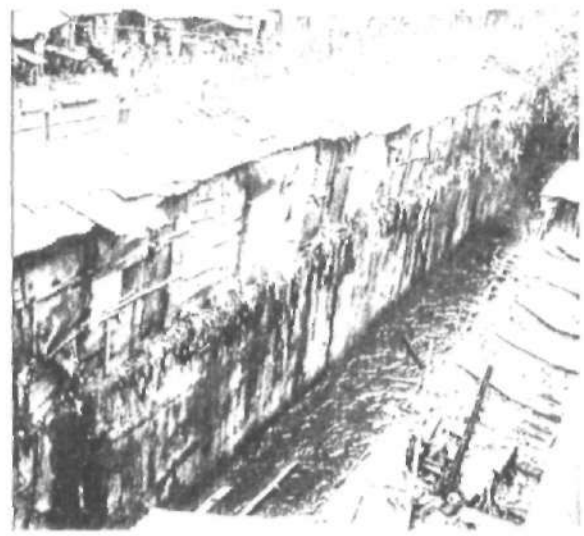
goods to his shop, adequate space appropriation for his goods and the favourable location of his shop to attract the intended customers are the chief problems to be solved in planning the marketplace to satisfy the shop owner. For the motorist, the main problems which need to be addressed include access into the market facility, easy circulation, adequate parking space and security (Burns, W., 1959).

These problems in planning are more clearly seen in the closed marketplace. Many of them are solved in the design of the modern shopping mall. In a redevelopment scheme however, they pose a greater challenge and are more difficult to solve.

3.4.2 Circulation: Circulation within the marketplace involves a network of pedestrian market users, vehicular circulation, services and delivery routes. These routes which are clearly defined when the marketplace is designed eventually get mixed-up. This could be due to changes in land use, activity of hawkers or increased population which the routes provided cannot adequately cater for. Thus, the easiest routes are taken up by whichever group of market user is deficient. This problem is more pronounced in more populated towns and cities and consequently in larger marketplaces.

3.4.3 Waste disposal: The marketplace generates a lot of solid waste. Large quantities of perishable and non perishable goods are delivered daily. Discarded packaging, excesses, rotten farm produce, defective items are among the many waste products in the marketplace needing effective disposal. Foul waste is also generated especially in the marketplaces of developing countries where rain water and surface

water often compounds the problem of waste disposal in the marketplace. It is commonplace to see huge rubbish dumps in the neighbourhood of local markets.



Foul water drainage gully between shops in Teju-Osu market Lagos, Nigeria (source: Author's field work.)

3.4.4 Fire: The numerous incidences of fire in marketplaces underscore the need to address the problem of fire occurrences in such facilities. The marketplace operates only during the day, thus the danger of fire outbursts are increased when the facility is not in use. The presence of a lot of combustible goods and waste also increases the risk of fire. The problem of fire is not limited to marketplaces only but to most public buildings for the same reasons. The situation is further complicated in the marketplace due to the constant congestion of human and vehicular traffic and the indiscriminate use of all space available. In the eventuality of a fire occurring during working hours, access of fire fighting vehicles to the market structure would be almost impossible.

3.4.5 Security: The marketplace is a focal point for the public and of all commercial activities; it therefore attracts various tradesmen including those of the underworld thus endangering both the customer and the shop owner alike. This problem grew increasingly alarming with more urbanization. The main areas that pose a threat include

delivery areas and the parking areas. Loading and offloading of delivered goods and bought items need to be in a secure environment. The shop, storage areas and warehouses are also areas which require tight security because of the goods they contain. This problem of security is solved to a high degree in the design of the enclosed shopping mall where the market environment is more secure.

3.5 URBAN RENEWAL AND THE MARKETPLACE

Urban renewal was initially proposed only for residential areas. The relevance of urban renewal programs to commercial and industrial areas was realized afterwards. By this time, urban renewal was going through a change in process from the ugly phase of demolition to the more tolerable redevelopment/rehabilitation scheme which was precisely what most blighted commercial areas required. More so, the cost of demolition and putting up a new development was staggering to the government. The marketplace is an area which is used daily, all year round and is highly populated so it is harder to propose and effectively carry out a new development for it than most other urban areas.

Of all the buildings contained in commercial districts, none is in more obvious need for renewal as the marketplace. Almost every aim and all the benefits of urban renewal can be realized if the marketplace is revitalized through a renewal scheme. The aim of urban renewal to improve the quality of life of residents in the urban areas will undoubtedly be achieved as the marketplace is usually centrally located and is an integral part of every urban dwellers daily itinerary. Other urban renewal aims that will be achieved in renewing the marketplace include:

i. Updating and improving the markets' infrastructure to modern standards thus providing incentives for desired future development.

ii. Designing more effective and environmentally-friendly road networks within and around the marketplace

iii. Rationalizing land uses and space allocations

iv. Preserving buildings, sites and structures of historical, cultural or architectural interest. Many markets are situated in sites of historical importance or themselves are historical buildings or landmarks and so require renewal schemes that will preserve or restore such buildings.

v. Preserving the social networks of the local community.

vi. Providing better and more open public spaces and enhancing the townscape with attractive landscape designs to attract increased local and foreign patronage.

Renewal efforts have shifted in focus from residential areas-they have been left for private developers and property owners-to the more lucrative commercial districts where renewal of facilities like the marketplace will undoubtedly boost economic returns (Wheaton et al, 1966:468).

3.6 ENVIRONMENTAL IMPACT ANALYSIS OF THE MARKETPLACE IN AN URBAN AREA

A number of characteristics have been recognized all over the world as indicative of urbanization. Top on the list are the interminable traffic jams and congestion. Others include; noise and air pollution, high building and population densities, problems of solid and foul waste disposal (particularly in urban areas in developing countries) and

so on (Burns, W., 1959:96). A study of the modern marketplace will reveal the presence of all these problems and more and at deeper levels.

The impact of the operation of a marketplace bears upon the social, physical and even biological environment. The impacts on the physical and socio-economic environments are however most felt. These impacts can be assessed in an Environmental Impact Analysis (E.I.A). This is an activity designed to identify and predict the impact of any given project on the biological, geographical and built environment on the residents of the area and to interpret and communicate these impacts to the relevant authorities (Munn, 1979).

Thus the E.I.A process can be defined as a well organized, orderly and scientific appraisal and evaluation of the total effects of a particular development on the environment.

E.I.A is carried out before the implementation of any U.R scheme to determine the extent of the impact such a scheme or project would have on the environment and this in turn would enable appropriate decisions to be taken on the best course of action that will maximize the benefits of the scheme to the physical and socio-economic environment of any given urban area.

An E.I.A of marketplaces on the urban environment particularly in Nigeria is shown below.

Table 2: summary of E.I.A of the marketplace in the urban environment

FACTORS	EFFECT	COMMENT/RECOMMENDATION
Environmental factors	Air pollution from cars.	Design of effective vehicular circulation and provision of adequate parking facilities needed to reduce traffic congestion.
	Noise pollution from vehicular traffic, market transactions and activities, generators and other mechanical equipment.	Little impact on neighbouring districts as marketplaces are usually situated in commercial and public areas or at the city centre where noise level is high.
	Foul odour from decaying perishable goods, refuse dumps and open drains	Provisions of proper drainage facilities.
Socio-economic impact	Effect on surrounding land use	Designation of large expanses of land for parking purposes.
		May necessitate special land uses in the surrounding area such as pedestrianized zones.
		Positive effect on economic growth of the area. Commercial boost and increase in revenue generation.

		Quick development of surrounding area to complement market activities such as business centres.
	Effect on traffic flow	Adequate planning and design of traffic flows/circulation to prevent rush-hour traffic especially at peak periods of market operation.
	Effect on employment opportunities	Marketplaces in urban areas boost employment rates in the area.
	Effect on demand for public services	More demand for public amenities thus provision for such public services as restrooms, water services and light need to be adequately catered for in view of the expected population of market users/day.
Circulation impacts	Pedestrian and vehicular circulation	Increased pedestrian and vehicular movement. Better access into the market and for pedestrians. Proper and effective planning for vehicular circulation within the market premises needed to avoid congestion and traffic jams.
Other impacts	Safety and security	Negative impact on market users as well as on the residents of the surrounding area as the marketplace attracts a lot of touts, swindlers and thieves.
	Effect on vegetation and landscape	Special care needs to be taken to ensure that the operation of the marketplace in the urban area doesn't adversely affect vegetation and green areas.

	Parks and gardens can be incorporated in the design of the marketplace and care taken to ensure they are well preserved.
Effect on historical sites and locations	Most marketplaces are historic centres and thus are beneficial to the urban environment in which they are situated as a tourist attraction or for educational purposes.
Aesthetic quality of physical and built environment	With successful redevelopment, an urban marketplace is an asset to the city in terms of its aesthetic appearance. Design of an aesthetically pleasing market structure will go a long way to ensure that.

3.6.1 Analysis

From the table above, the architectural contribution to urban renewal in the marketplace is evident.

The goal of the analysis which the architect aims to achieve is to design the marketplace such that the adverse impacts are minimized and the positive/beneficial impacts are maximized. For example, provision of an effective car parking system will greatly reduce air pollution from cars held up in traffic congestion. Likewise, functional design of drains and a waste disposal system will minimize the common problem of perpetually offensive odour in marketplaces.

Adherence to the recommendations made will ensure that the impact of an Urban Renewal Scheme on the Marketplace is beneficial.

CHAPTER FOUR

CASE STUDIES

4.1 INTRODUCTION

A case study involves an analysis of a particular case or situation, (related to the subject of study) used as a basis for drawing conclusion in similar situations. Case studies are meant to bring to light current, real time occurrences and issues for detailed analysis, thus providing the information necessary to make an informed decision.

4.2 SELECTION CRITERIA AND STUDY VARIABLES

This study employs the use of comparative case study analysis to discover and highlight patterns that transcend the analysis of an individual case (King, Keohare & Verba, 2000) This study reviews five cases of local and international renown and because the method of analysis is by comparison, all five cases are similar in certain important and relevant aspects and dissimilar in others.

4.2.1 Selection criteria

This research focuses on an urban problem. Thus, each market selected;

i. Is situated in an urban area and thus faces problems peculiar to public buildings in urban areas
ii. Is a modern market complex distinct from the modern shopping mall as highlighted in the previous chapter.

4.2.2 Variables

Variables for study include;

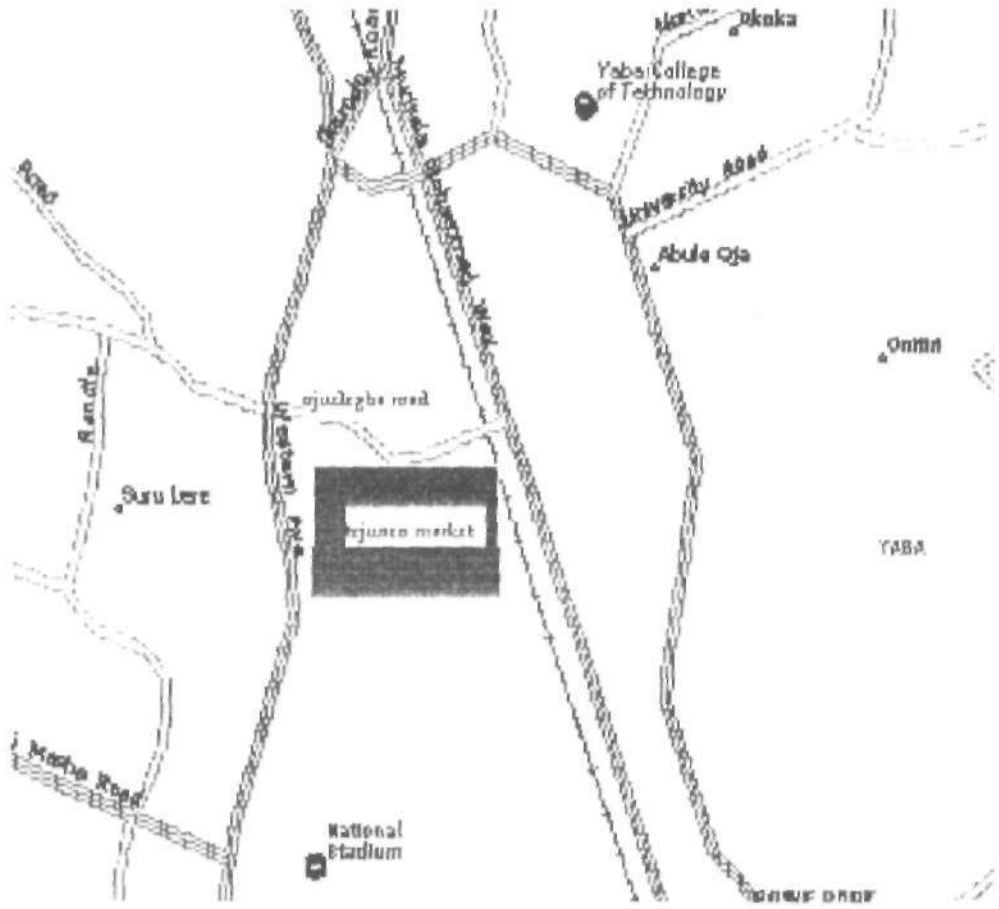
i. Planning
ii. Access/Parking
iii. Services

iv. Materials used/Construction

v. Impact on the urban environment

4.3 CASE STUDY 1- TEJU-OSU MARKET

The Teju-osu market is located along Ojuelegba road, Yaba, Surulere Local Government, Lagos.



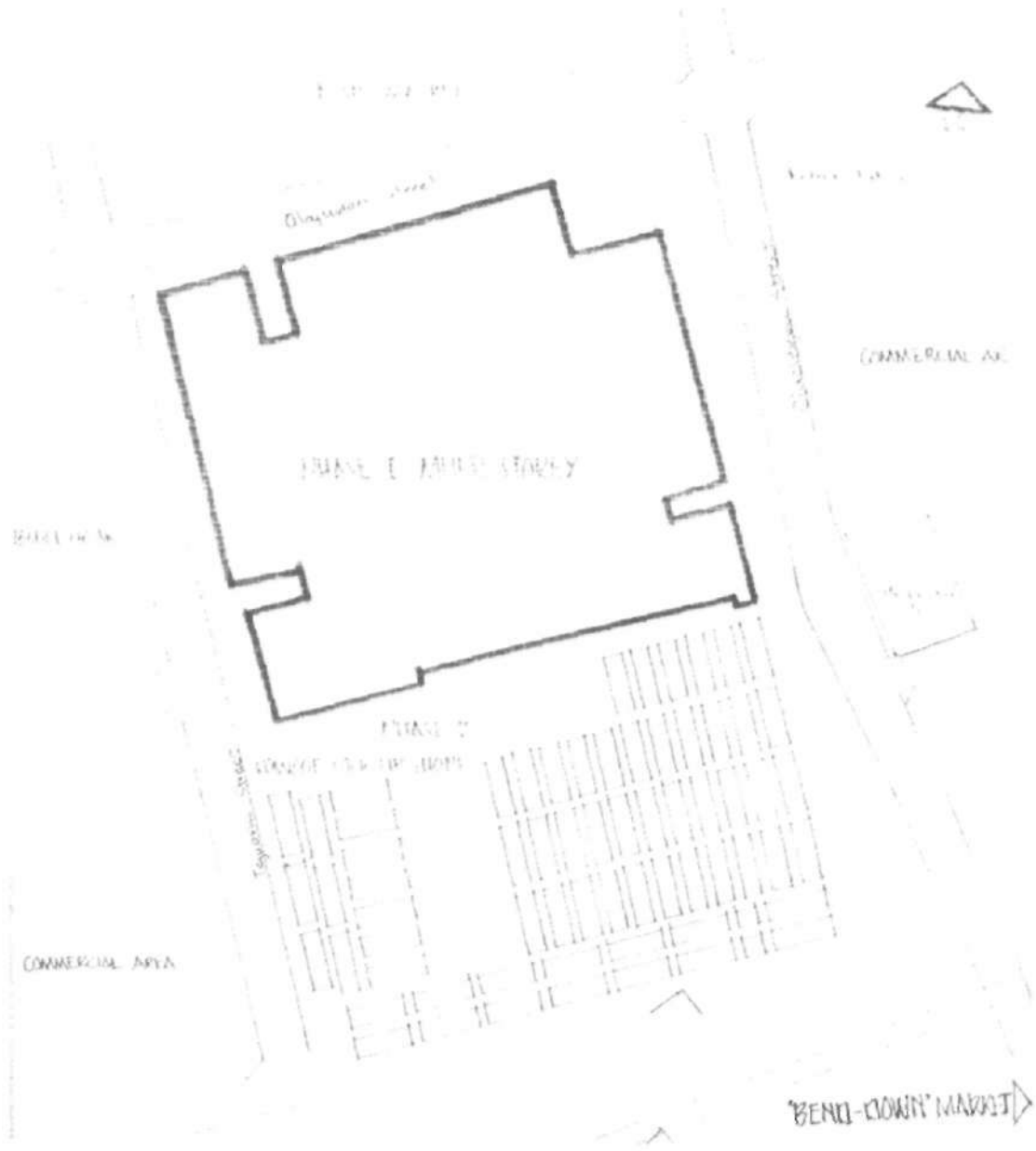
Location map of Teju-oso market.(source-Microsoft Encarta)

The market was built by the Lagos State Market Development Board and commissioned in 1978. It is bordered by N.T.A to the south-west, the railway to the south and the national stadium to the west. The railway track and its surrounding area near the market have been converted to a 'fairly-used' clothes market.

The entire market complex initially occupied a ground floor area of about 34,500 square metres. At present however, it is impossible to ascertain the actual size of the market due to its spread all around. Facilities provided include a police post, Market Admin. Section.

The market is currently shut down for redevelopment purposes. Market activities around the closed market however continue.

4.3.1 Planning: The market consists of two parts; the phase 1 which is a two-storey complex and the phase 2 which consists of lock-up shops built row upon row. This was an extension of phase 1.



Site layout of the market(source:Lagos state ministry of works)

4.3.2 Access/parking: The market can be accessed from the Ojuelegba road. This road is quite congested with both vehicular and pedestrian traffic. Hawkers and petty traders line the roads on all sides of the market. The allotted parking space within the market for customers has been taken up by traders of perishable goods.

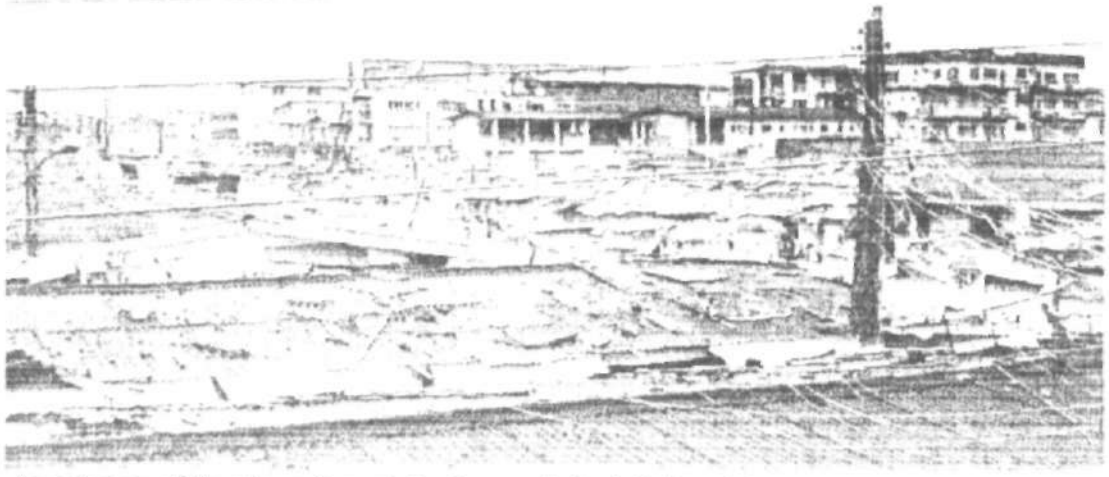


The railway south of the market. It has been taken up for use as 'bend-down' market. (Source: Author's field work.)

4.3.3 Services

i. Fire: The densely packed nature of the market at present allows no access to fire service trucks, hence in the event of a fire, the market structure would be inaccessible. Also the close proximity of all the buildings on site and the plank market on the north end of the market is an additional fire hazard.

ii. Lighting: Pockets of spaces and sections in the entire market, phases 1 and 2, are

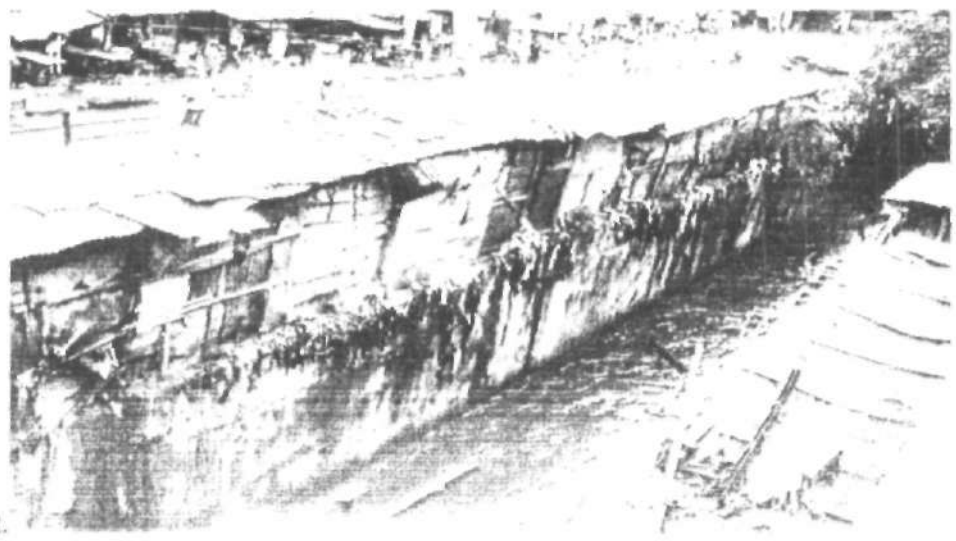


Aerial view of the phase 2 market. . (Source: Author's field work.)

poorly lit. The main market structure, phase 1 is box-shaped and compact in plan, thus, there are sections in the interior which is not reached by light from all the fenestrations

provided. The roofing system allows for the market to be lighted from above but this does not adequately cater for the lighting requirements of the market. This necessitates the use of portable generators by the traders and leaves the enclosed environment constantly polluted by fumes from the generators and gives off different ambient lighting conditions from shop to shop. In addition to the discomfort this lends to shopping, it is also detrimental to the health of market users. The phase 2 also experiences poor lighting conditions. Sunlight penetration is poor because the rows of shops were built with inadequate space in between which over the years have been covered for weather protection.

iii. Drainage: Like in most parts of Lagos, drainage is poor especially in the phase 2 market.



drainage gully between the railway and phase2 market

. (Source: Author's field work.)

A huge drainage gully runs between the railway line and the south-end of the phase 2 market. Disposal of solid waste is taken care of individually

4.3.4 Materials used and Construction

The phase 1 complex is built on a beam and column system with decorative brick facing on the external walls and corrugated asbestos with cladding used for the roof structure.

The phase 2 is a sand Crete-block construction of blocks of shops arranged in rows with pedestrian passage ways in-between. The roofing is a simple gable also of corrugated roofing sheets. The west end of the phase 2 market is also a fairly-used market of shoes and clothes. Simple post and lintel stall construction, roofed with zinc has been set-up by the traders.

The building materials used have the advantage of being good fire-resisting materials.

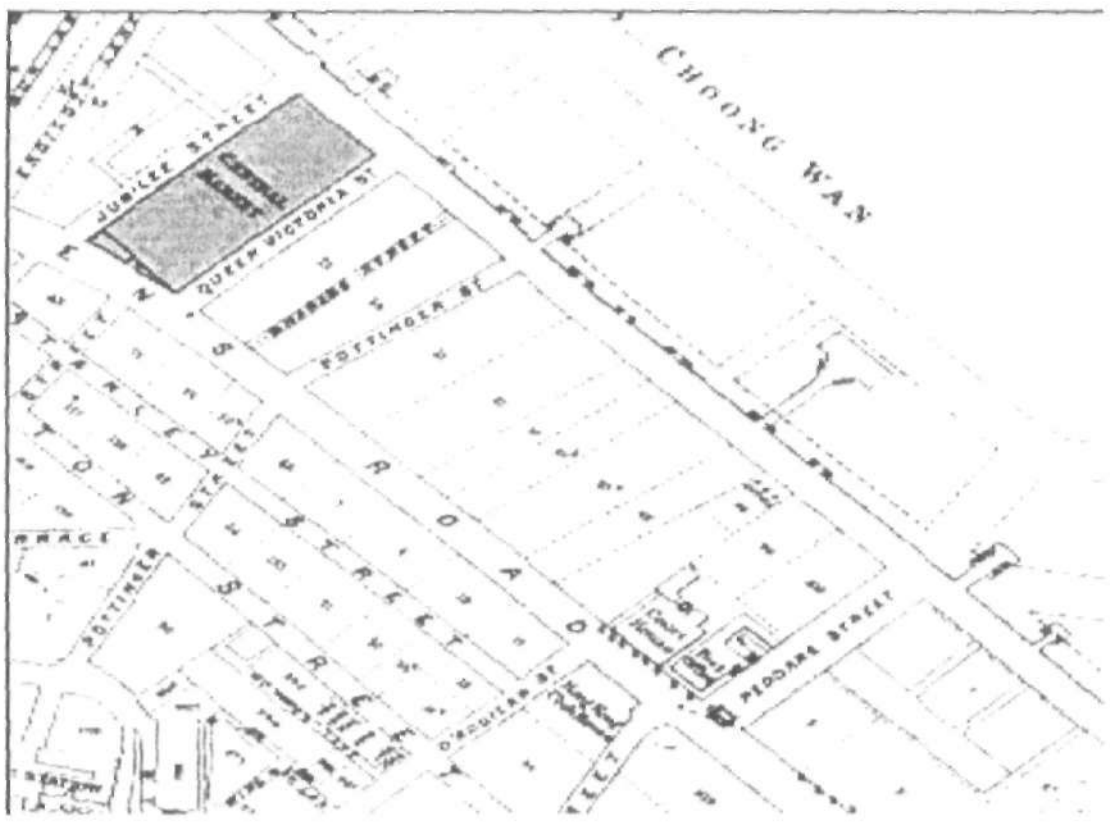
4.3.5 Environmental Impact Analysis - The market facility and operation impact the environment in the following ways:

a) Impact on the urban environment. Most of these are negative impacts such as increased air pollution, lots of solid and foul waste which give off a bad odour, noise pollution, particularly affecting the residents of the area market and most of all the impact on traffic. Traffic along roads is always jammed, routes are even diverted to avoid the jam and access to other public facilities in the area is seriously hampered.

b) Impact on services: Negative impact on drainage services particularly around the second-new market along the railway market.

4.4 CASE STUDY 2- CENTRAL MARKET, HONG KONG.

The Central Market, Hong Kong is located between the Praya (Des Voeux Road Central), Queens Road Central, Queen Victoria and Jubilee streets. Its history dates back to 1842 and then it was called the canton Bazaar. It was renamed Central Market in 1850. The market has been rebuilt a number of times, the present day market was built in 1938.



Location map of Central Market(Source: Architectural Services Department, Hong Kong)

4.4.1 Planning: The market is a 4-storey reinforced concrete structure and contains 200 booths inside. The market is spacious with a central court, high ceiling and window walls for natural light and ventilation. There are two entrances of the market and because the market was constructed on a sloping site, the Des Vouex Road Central entrance is on the ground floor while the Queen's Road Central entrance is on the first floor.

4.4.2 Access/parking: The main market entrance is on Queen Victoria Street and another is on the 2nd floor on Queens Road central. No parking space is provided for within the market structure thus the entire market surrounding is a pedestrianized zone. Vehicular movement is restricted to designated parking areas (zones) around the market.

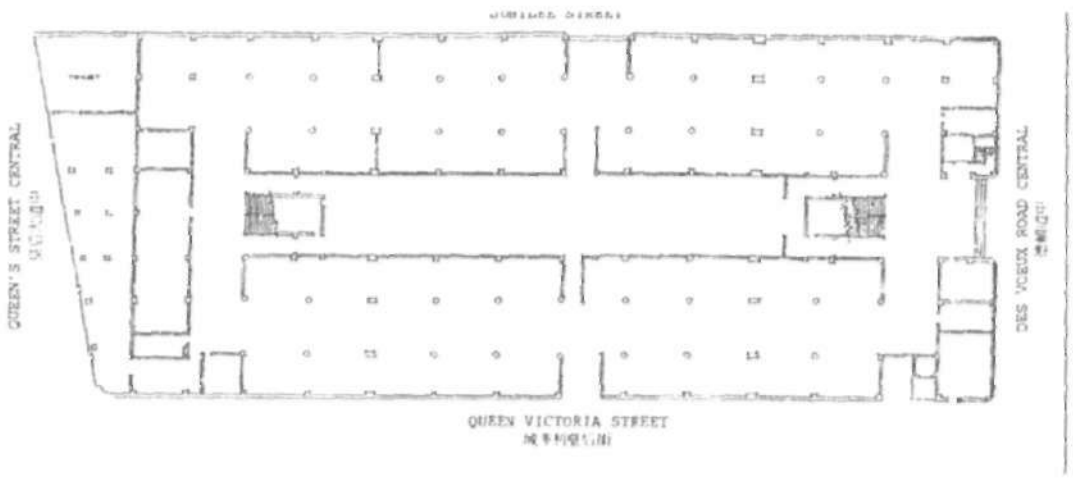
4.4.3 Services: The market is bordered on every side by roads and so access of services such as fire is taken care of. The market was constructed on Reinforced Concrete columns and beams. This serves as a fire resistant material.

Lighting on the façade of the market consists of strip window walls running across with shading devices at the east and west sides. The windows allow maximum lighting and ventilation to the crowded market interiors.

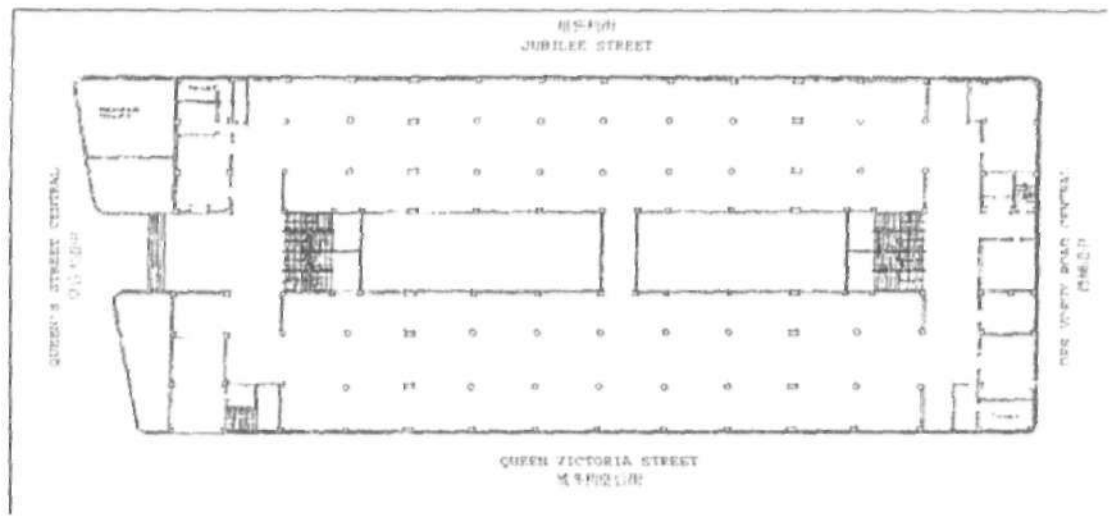
There's also a long linear centre courtyard on the middle of the building which enhances natural lighting and ventilation to the building.

4.4.4 Materials used/construction: The market is of Reinforced Concrete beam and column frame-structure.

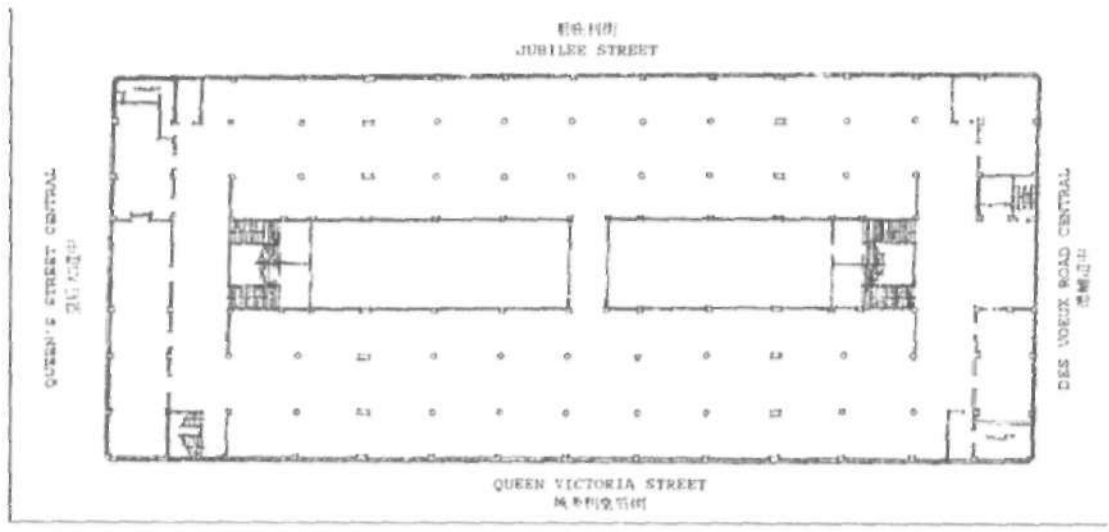
4.4.5 Design: The Central market was built at the period of the greatest influence of the Bauhaus, thus, the Bauhaus principle of form follows function was strictly adhered to. Similarities in the horizontal windows on the façade of the market with that of the Bauhaus can also be seen.



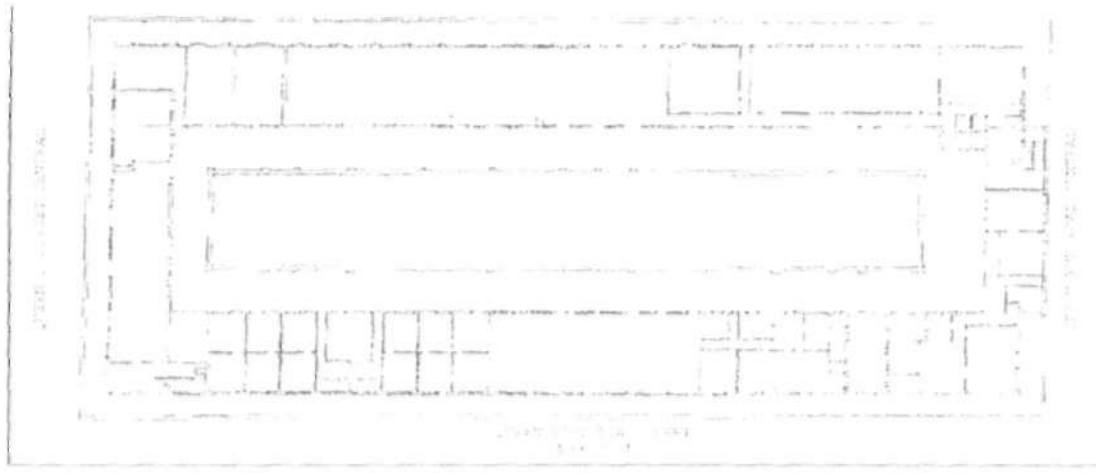
Ground Floor Plan



First Floor Plan



Second Floor Plan



Third (Roof) Floor Plan

All drawings are not to scale (Source: Architectural Services Department, Hong Kong)

The facade design is simple with no unnecessary ornamentation. In general, the overall design of the central market follows its functional requirement as a market place while each individual element follows its specific performance requirement.



Perspective View showing façade on Queens Road Central scale (Source: Hong Kong institute of architects)

4.4.6 EIA:

Impact on urban environment: The market is situated in a predominantly financial and commercial district with high-rise buildings. This district was the earliest developed area in Hong Kong. The market site is very significant historically as a number of note-worthy events in Hong Kong history are centred on it.

4.4.7 Architectural Significance: The existing market building was designed to be functional and simplistic. Thus is has posed no problem to the environment, or its users. The zoning of the site and its adjacent area ensured vehicular traffic was co-ordinated around the market. It can be seen that the architectural input contributed to the development of the urban area and minimized negative impacts of the operation of such a facility to the urban environment. The market is accessed only through pedestrian walkways and entrances.

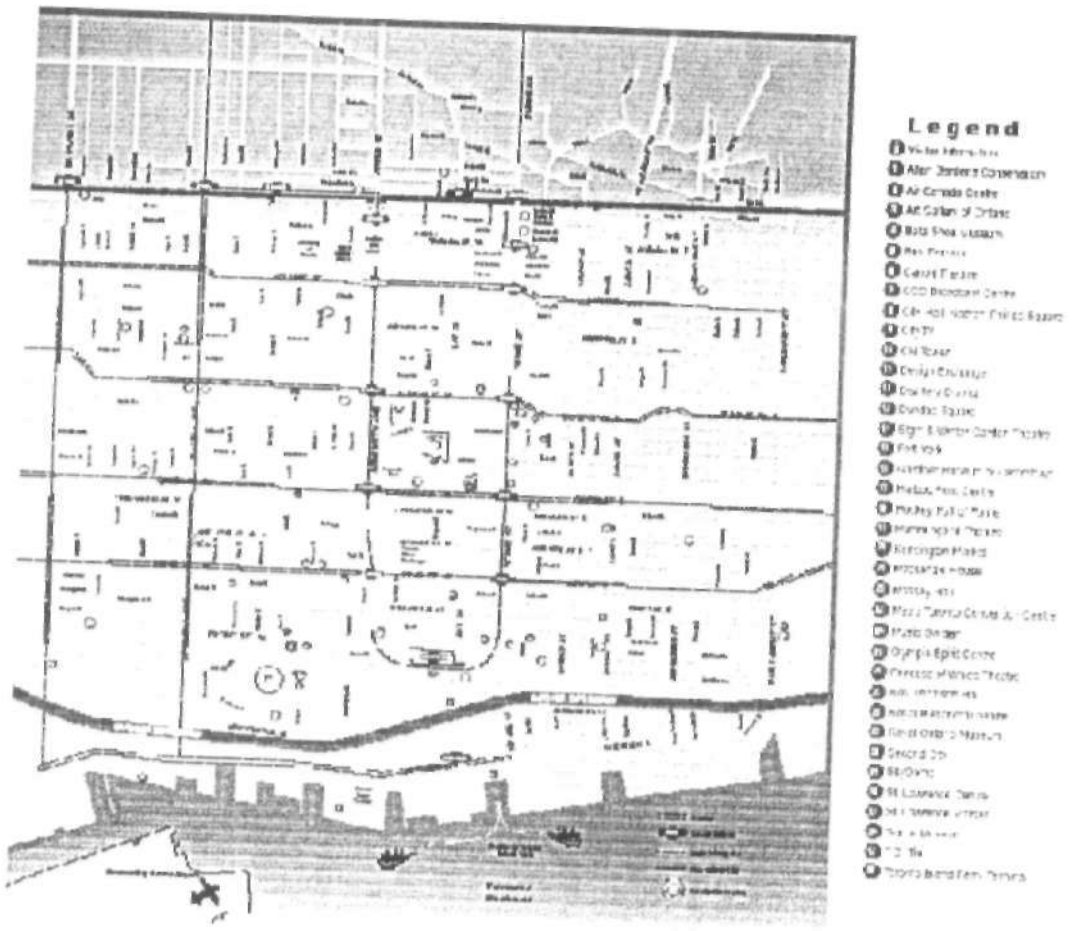
4.4.8 Historical Significance: Presently, the central market is closed down (has been since 2003) and the building is marked for redevelopment. However because the building is one of only two of its style (the Bauhaus style which prevailed in the 30's,) it is considered a monument. The work has an old history dating back to the late 19th century. In the past, the market was used as a place for gathering and entertainment, it was one time Asia's biggest meat market, the market was renamed by the Japanese troops when they occupied Hong Kong, thus it has witnessed a historic event. In addition to all this, the central market pioneered the development of the modern indoor market leading to the development of the shopping mall etc. the market is in close proximity to other cultural heritages in the same district and also a number of street

markets close by. All these give a rich diversity of social, architectural and historical significance to the general public, tourists and academics.

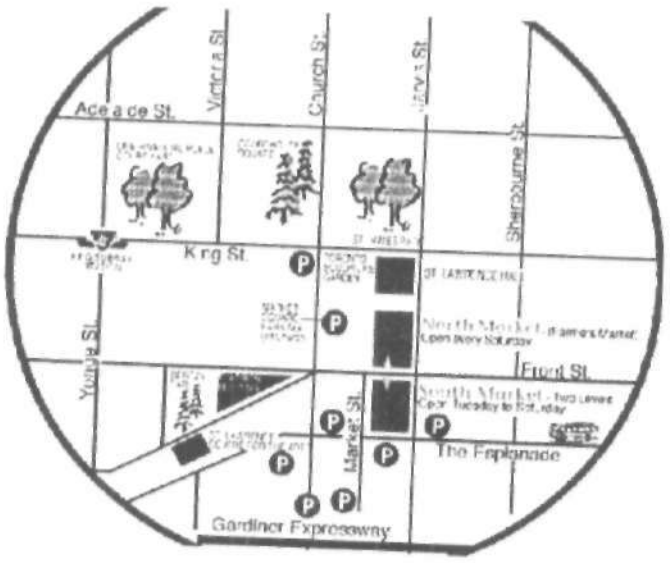
4.4.9 **Facilities Provided**: Include staff quarters and offices for market staff, about 180 market-stall spaces and an open space in front of the market used in the past for entertainment.

4.5 CASE STUDY 3- ST. LAWRENCE MARKET, TORONTO

The St. Lawrence market is located in the North-west community of the front Street/Jarvis Street intersection. The market place, owned by the city of Toronto has existed since 1803 when Governor Peter Hunter designated the area of a market block. This expanded over time to form the St. Lawrence market placed including the North and South market buildings and, St. Lawrence Hall. The market place has been a centre of Government, Commerce and Social activity and now a tourist and shopping centre.



Site location map –overview(source:www.toronto.ca).



Site Location map (close-up). (source:www.toronto.ca).

4.5.1 Planning: The market is comprised of three buildings; the north market, the south market, and north of the north market, the St. Lawrence hall. The south market is a 3-storey building with the topmost floor housing the market gallery (the official exhibition centre for the city of Toronto archives.) On the ground and 1st floor, a variety of market activities take place, particularly the sale of fresh fruit and vegetables.

The North market is used for special market-day operations such as the farmers market on Saturday; antique market on Sundays, and on week days, the North market hall is rented out for functions, gatherings, etc.

The third building is the St. Lawrence hall built in 1850, it houses retail businesses on the ground floor, and offices for the city of Toronto on the second floor, the third floor was restored in 1967 to contain the great hall also available to let.

4.5.2 Access/Parking: The South market is accessed mainly from Javis Street and also from Market Street and the esplanade while the north market is accessed from Javis Street and Front Street. On site parking is unavailable, there are however a number of publicly and privately owned parking lots and garages within close proximity to the market. Total parking spaces within a 300-mile radius of the market are 4000. A pedestrian crosswalk connects the north market to the south market.

4.5.3 Services: Loading and off-loading bays are practically non-existent. A small parking/loading area is available at the rear of the north market but the access it provides into the building is limited. Javis Street, Front Street and sometimes King Street are used

to load and unload cargo in passenger cars or cargo vans and trucks. Thus the delivery services into and from the market is unsatisfactory.

4.5.4 Design and Construction: The market halls are all rectangular in shape. The North market hall is about 10,000sq ft. The plan of the market is coded/keyed according to the type of products being sold.

The south market is roughly about the same size as the north market but designed on columns all around to support the upper floors. Along Jarvis street and the rear of both the north and south market are pedestrian streets.

4.5.5 Environmental Impact Analysis:

Urban Impacts: The most pronounced impact is the traffic impact due to increased activity of on and off loading on the roads bordering the market site and around road intersections.

The North market is being considered for redevelopment and expansion to maximize its use. The market place enjoys patronage from all over the city of Toronto, thus, it adds a positive impact to the economic growth of the area.

Opposite the market place to the east are private residential areas. The public activity and number of people attracted to the market could pose a danger/threat security wise to residents in the area besides taking up most of the parking spaces in the vicinity.

4.5.6 Historical Significance: St. Lawrence market is one of the city of Toronto's most valuable historical properties. The market was established in 1803 by Governor Peter Hunter. The present day market was built in 1850 to replace a brick market structure which burnt in fire in 1849. The south market began as a city hall housing city offices and the market. As the city grew, it became inadequate for use as a market. The building also experienced problems with flooding and so renovation work began on it bit by bit and then completely in 1978. The market enjoys patronage from all over the city.

(vii) Architectural contribution: Both the North and South markets have undergone a series if renovations, and total reconstruction from the original city hall/market buildings they were to what is presently existing. In this period, many architectural inputs have been sought and utilized. Through all the changes however, the buildings have served the same function they were originally designed to serve.

4.6 CASE STUDY 4- FANEUIL HALL MARKET PLACE BOSTON.

The Faneuil hall marketplace is located in the heart of Boston, adjacent to historic Faneuil hall, and bordered by the financial district, the water front, the government centre and the market. It is one of the city's popular tourist attractions and is within close proximity to other tourist and historic places such as the New England aquarium, the children' museum, the old state house, etc.



Faneuil hall location map(source:www.greatbuildings.com)

Faneuil hall was built in 1742 by Boston's wealthiest merchant at the time, Peter Faneuil. It was home to merchants, fishermen and other traders and provided a platform for the country's famous orators such as Bill Clinton, Ted Kennedy, and George Washington. The market was expanded in 1820 to include Quincy market – material on this market place.

4.6.1 Planning: Faneuil hall market place comprises of four buildings; Faneuil hall, Quincy market, the North and South market, all on 6 acres of land. The market place consists basically of the Quincy market place colonnade, shops, restaurants, and the bull market with pushcarts. In addition to this, on-the-street entertainment is provided. Other facilities provided include rest rooms, coffee shops, stalls, and of course the hall for rent.



Elevation of the north market(source:www.greatbuildings.com)

4.6.2 Access/parking: The market is located at the intersection of two streets (Congress and North Street) and is accessed mainly on foot from various bus train terminals, parking garages and even the airport all close to the market place. There are 10,700 parking spaces within a 2-mile radius of the market place.

4.6.3 Materials used/construction: Materials used for construction is masonry. The market place was run down in the early 70's. It was redeveloped in 1976 in an UR project which turned out to be a huge success leading to the creation of similar market places in New York, Miami, Washington, etc. The market buildings were renovated, the number of shops, stalls, and restaurants increased and expanded, pedestrian walkways and side streets improved on and glassed over to provide weather protection and extend market operations and expand market space.



Perspective view of the quincy market. (source:www.greatbuildings.com)

Quincy market was renovated in a blend of neoclassic and Greek revival architecture in which it was initially built.

4.6.4 EIA

Urban Impacts: Impact of the market on the urban environment has mostly been positive particularly since its redevelopment in an U.R. project in 1976. Commerce and Tourism have been boosted. There are so many parking garages around the market place and many access points to the area that pedestrian and vehicular circulation has not been adversely affected.

4.6.5 Historical significance: The market place has a lot of historical significance. Faneuil Hall was founded in 1742 by Peter Faneuil as a central marketplace for crops and livestock in downtown Boston. Faneuil Hall served as an important meeting place in the history Boston, it was expanded to include Quincy Market in 1826, when Boston's rapid growth necessitated a larger marketplace. Faneuil Hall celebrated its 150th birthday in 1976 with major renovations, creating Faneuil Hall Marketplace. The

construction was considered America's most prominent "urban renewal" project, and the Marketplace's subsequent success has spawned the creation of other similar urban marketplaces in New York, Baltimore, Miami, Washington, Los Angeles, Tokyo, Cardiff, Glasgow, and most recently in Portland, Maine.

Faneuil Hall Marketplace originally had five restaurants, three bars, seven delicatessens, and 16 food shops, as well as other shops selling a variety of merchandise. Today, there are 49 shops, 18 restaurants and pubs, 35 Colonnade eateries and 44 pushcarts in Faneuil Hall Marketplace. It is easily accessible from Boston public transportation, and there are 10,724 parking garage spaces within a two-mile radius of the Marketplace.

4.7 CASE STUDY 5- MAKURDI MODERN MARKET

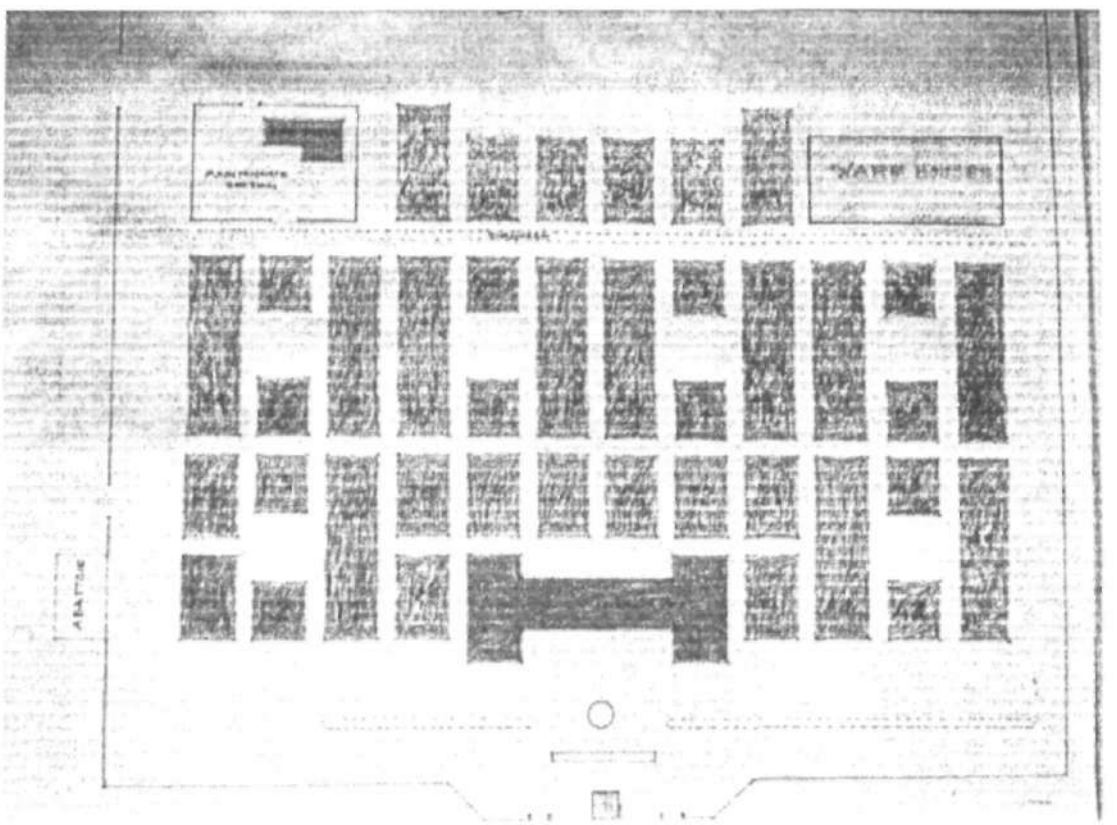
The Makurdi Modern Market is located off Naka road, Makurdi, Benue State. The market was constructed over 30 years ago. It is bordered by Ankpa housing estate to the east, the NUJ house to the north and the industrial layout of Makurdi is further west.



Access and parking into the market(source:authors field work)

Business and residential districts are adjacent to the access road to the market.

4.7.1 Planning: The market is planned within a ring road that serves as the loading and off loading bays for the various market sections.



Layout of the market(source: market administrative office.)

The entire market is fenced with a gate at the entrance which leads directly to a double-banked parking space for 200 units. Beyond the parking area is the administrative bloc of 3 floors which houses banks, the market administrative section and a multi-purpose hall for let. The rest of the market consists of blocks of shops.

Each block is rectangular in shape and consists of two rows of 5-shops each arranged back to back and sharing an internal wall. Traders of similar goods are grouped together in a place e.g. provision and food items are situated to the left of the admin. Block, clothes, shoes and bags to the right, building materials, hardware supplies are situated at the rear of the market.



The market administrative block(source:authors field work)

4.7.2 Access/Parking: A singular access into the market branches off the main road and so it isolates market users and minimizes traffic on that road. Parking space is available in front of the main market buildings so all vehicular movement except for delivery purposes stop at that point. The parking space (for about 200 cars) is usually sufficient except at peak periods during festive seasons

4.7.3 Services: Drainage is well taken care of by covered gutters along every row and around the ring road. Transparent glazing is used in-between the roofing sheets to allow light into each unit shop. In many of these units however, the traders have constructed temporary ceilings and so the sky lights are not being used. Loading and

off-loading services are well taken care of by the ring road and especially used by the building material market that occupies most of the rear end of the market.

4.7.4 Materials used and Construction: Aluminium panels are used ass wall cladding over the shops. Each block is constructed as a framed structure with posts at each corner and a beam over the entire block. Non-load bearing timber walls are used as partition to divide each block into 10 shops.

4.7.5 Environmental impact analysis: impacts on the urban environment are minimal in terms of traffic congestion to major roads around and also in terms of noise and air pollution because the market location is not at the city centre and yet is accessible from the town. The residential district in the area however suffers from air pollution because of the abattoir located within the market as well as security threats posed by the many market users.

The built environment around the market has been positively affected as the area is fast developing due to the markets presence in the prescient. Shops and business centres have

"sprung up" to the left and right of the access road. The entire area is thus taking shape to give an attractive "townscape".

4.8 SUMMARY OF FINDINGS

	CASE STUDIES					
Variables	**Teju-osu**	**Central market, Hong Kong.**	**St. Lawrence market.**	**Faneuil hall marketplace**	**Makurdi modern market**	**comments**
Planning	Poor planning. Size is grossly inadequate Space appropriation dysfunctional.	Well planned. Double bunked with a central courtyard. Spacious and adequate.	Functional but inadequate size.	Functional and adequate	Functional and adequate	**Size inadequate for the more compact marketplaces and better for those of decentralized planning.**
Access/parking	Almost inaccessible from the main road. No organised parking except at the back of the market.	Entire area around is a pedestrian-only zone. Off site parking.	Poor location of access. Adequate off-site parking at close proximity to the market.	Excellent access from various parts of town. Pedestrian-only zone but adequate off-site parking at close proximity to the market.	Good access. Adequate parking.	**Access better for pedestrians and not for motorists. De-centralized parking most effective.**
Materials used and construction method.	Reinforced concrete, sand Crete blocks. Beam and column construction spanning long distances.	Reinforced Concrete beam and column frame-structure.	Columns and beams construction.	Constructed in 19th century Neoclassical and Greek Revival styles.	Sand Crete blocks used to construct rectangular block of shops.	**Reinforced concrete beam and column grid best suited for the market structure.**

Services		No defined fire escape route. Good fire resistant construction materials used. Poor lighting in the market. Inadequate provision for loading and off loading services	Well-lit market interior due to courtyard.	Well serviced marketplace.	Functional and adequate.	Poor fire resistant material used for construction	**Efficient fire escape route, use of fire resistant materials, good loading and offloading delivery routes, proper drainage and adequate lighting are paramount to ensure the market is serviced properly**
Facilities provided	Security post	provided	-	-	provided	provided	**Facilities provided vary depending on the functions the marketplace serves and its history. Those doubling as tourist destinations and those with historical significance have facilities such as town hall, exhibition hall, entertainment and increased number of restaurants as against the strictly conventional marketpla**
	Information post	provided	-	provided	provided	provided	
	Bank /A.T.M	Available at close proximity to market	provided	provided	provided	provided	
	Restaurants	provided					
	Admin.	provided					
	Hall for rent	Not provided	Not provided	provided	provided	Not provided	
	Entertainment	Not provided	provided	Not provided	provided	Not provided	
	Tour guide	Not provided	Not provided	Not provided	provided	Not provided	
	Parks /leisure facilities	Not provided	Not provided	provided	provided	Not provided	
	restrooms	provided					

							ce.
E.I.A	Impact on traffic	Adverse	No vehicular traffic permitted around market	Adverse	Beneficial	Beneficial	**Major environmental issues which require careful design in order for it to be beneficial include; traffic impacts, pollution issues effect on the urban area, among others.**
	Economic impacts				Beneficial		
	Circulation impacts	Adverse effect as circulation is more difficult than ever.	Beneficial	Adverse	Beneficial	Beneficial	
	Environmental impacts	Adverse	-	Positive impact	Positive impact	-	
Space appropriation.	Fresh food	Inadequate	-	Adequate	Adequate	Adequate	**St. Lawrence market, Fanueil Hall marketplaces have separate food markets taking up an entire part of the market to cater for the need.**

STATISTICAL TABLE OF CASE STUDY FINDINGS

PLANNING	VARIABLES / CASE STUDIES	CIRCULATION AND WAY FINDING	SPACE FOR EXPANSION	ADEQUACY OF SIZE	SERVICES: LIGHTING	SERVICES: EASE OF FIRE ESCAPE	SERVICES: EASE OF WASTE DISPOSAL	SERVICES: EASE OF GOODS DELIVERY	TOTAL AVERAGE
COMPACT	TEJU-OSO	2	1	1	1	1	1	2	1.3
	CENTRAL	4		3	4	4	3	3	3.1
CLUSTERED	ST.LAWRENCE	4	4	5	5	5	4	3	4.3
	FANUEIL HALL					4	4	4	4.3
	MAKURDI					4	5	5	4.1

ACCESSIBILITY TRAFFIC AND PARKING	VARIABLES / CASE STUDIES	EASE OF ACCESS AND CIRCULATION	PARKING: NO OF PARKING SPACES	PARKING: NO OF SHOPS	PARKING: PARKING RATIO STANDARDS	PARKING: EFFECTIVE ADEQUACY	TOTAL AVERAGE
TRAFFIC ON SITE	PEDESTRIAN ONLY	CENTRAL				4	4
		ST.LAWRENCE				2	3
		FANUEIL HALL	3000	400	7.5	5	4.5
	PEDESTRIAN AND VEHICULAR	TEJU-OSO	300	2500	1/8	1	1
		MAKURDI	500	2500	1/5	3	3

IMPACT ON URBAN AREA	VARIABLES / CASE STUDIES	FACILITIES PROVIDED: SECURITY/POLICE POST	INFORMATION CENTRE	WASHROOMS	RESTAURANTS	OPEN SPACE	MALL FOR PEDESTRIANS	ENTERTAINMENT	PARKING	HEAVY VEHICLE PARKING	ECONOMIC IMPACTS	TRAFFIC AND CIRCULATION IMPACTS	SECURITY	TOTAL AVERAGE
MARKET TYPE (CLASSIFICATION BASED ON FUNCTION)	HISTORICAL ONLY	CENTRAL			•	•	•			•	3	3	4	3.3
		TEJU-OSO	•			•	•			•	4	1	1	2
	HISTORICAL AND TOURIST	ST.LAWRENCE	•	•	•	•	•	•	•	•	5	2	3	3.3
		FANUEIL HALL	•	•	•	•	•	•	•	•	5	4	3	4
	TRADITIONAL	MAKURDI	•		•	•	•	•		•	4	4	3	3.7

WEIGHTING FACTORS	5-EXCELLENT	4-GOOD	3-FAIR	2-POOR	1-VERY POOR

4.9 RECOMMENDATIONS

i. Clustered rather than compact planning of the marketplace ensures better lighting, way finding and circulation, fire fighting (in the event of fire outbreak), and more room for expansion.

ii. Provision of off-site parking lots within close proximity to the marketplace best takes care of the problem of traffic congestion within the market premise.

iii. The function marketplaces serve has evolved from strictly buying and selling to a more diversified range of activities including tourist attractions, entertainment and leisure. Thus, the provision of facilities such as halls, movie theatres, recreation and green areas not only facilitates tourism but also increases revenue.

iv. In the local studies, space appropriated for fresh farm produce or the food market is often inadequate, thus provision of adequate space for this specialty market is needed.

v. Marketplaces with a good parking ratio (no. of cars: no. of shops had less traffic problems to contend with.

vi. Marketplaces are often also sites of historical significance and are thus good areas to showcase local culture.

vii. De-centralized planning of the marketplace for better lighting, way finding and circulation, fire fighting (in the event of fire outbreak), and for more room for expansion.

viii. Provision of off-site parking lots around but within close proximity to the site.

ix. Provision of facilities such as town halls, recreation and green areas to diversify the use of the marketplace and increase revenue.

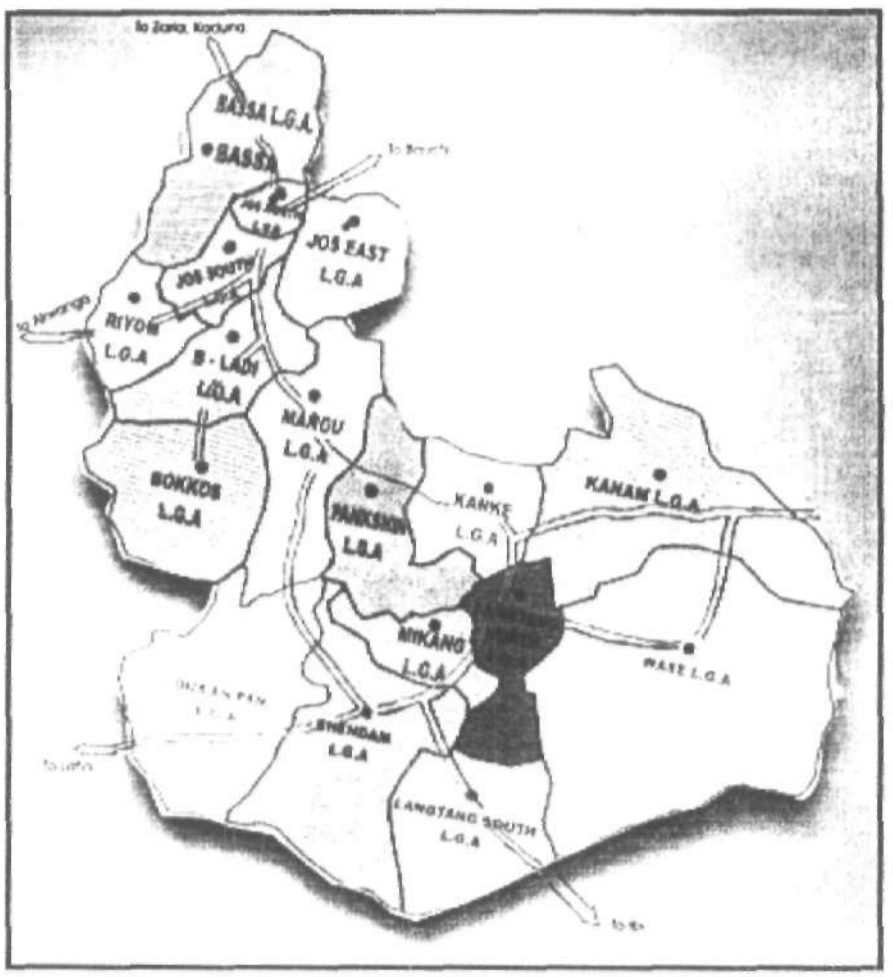
x. Provision of large and adequate specialized fresh produce market or food courts.

CHAPTER FIVE

SITE CONSIDERATIONS

5.1 INTRODUCTION

Plateau state was carved out of the former Benue-Plateau state when the country was divided into nineteen states on Febrary 3, 1976. Plateau State, which derives its name from the Jos Plateau, is located in the Middle-Belt Zone, it lies between latitude 80°24'north and Longitude 80°32' and 100°38' east.



Map of Plateau State(source:www.plateaust.gov)

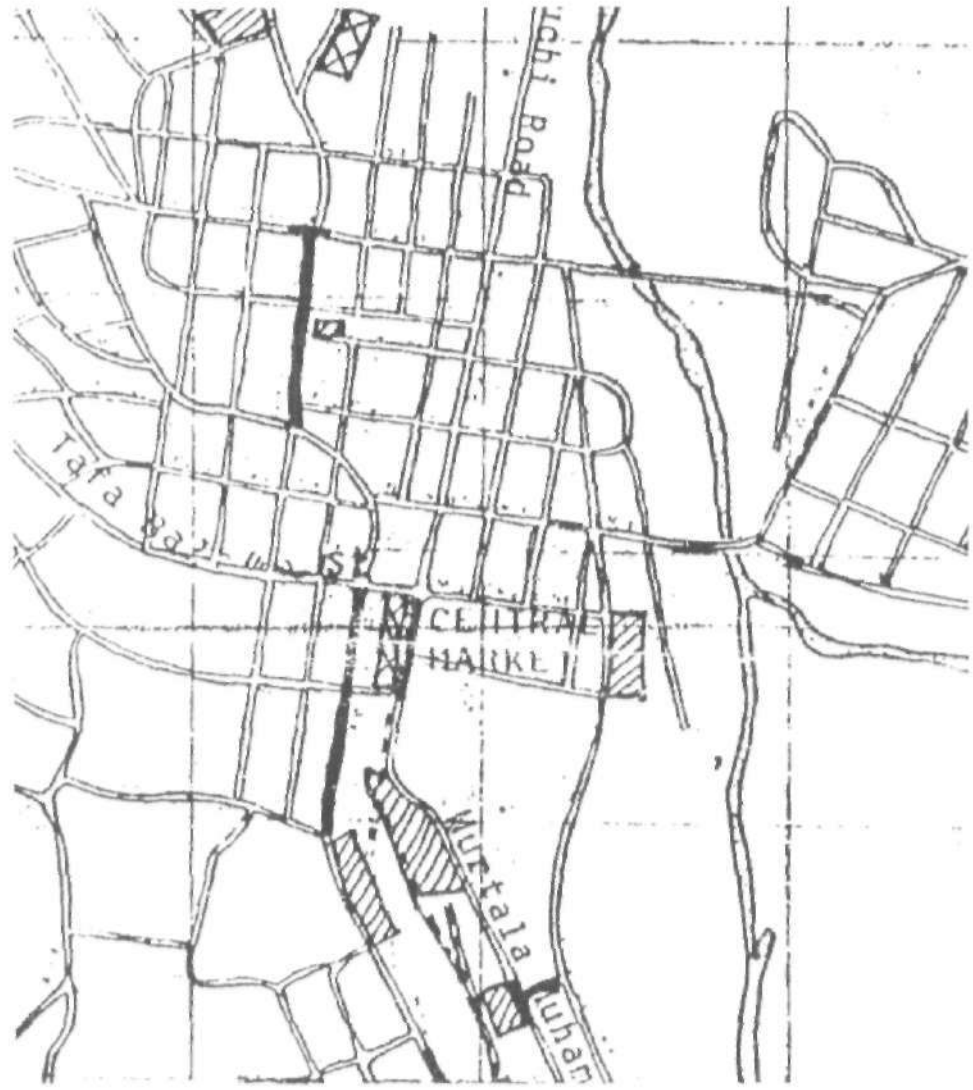
5.2 SITE SELECTION

The selection of site chosen for the market is in conformation with the existing site of the burnt market already being demolished. Other possible locations (for the decentralization) of the Central market include; Rukuba, Bukuru, Faringada and Mararaban jama'a all in the Jos metopolis. The selection of this location over others is not only the State Governments' decision or because it is the present location but also because of the historical significance the marketplace has come to have.

5.3 SITE LOCATION

The site is located right at the "heart" of the Jos CBD. This was not in conformity to the original master plan formulated for Jos town when it was made capital of the then newly-created Plateau State. Most of this master plan (1974-2000) was not implemented. Thus, the district which served as the Central Business District at the time still remains the CBD of Jos metropolis today.

The site is located at the intersection of Murtala Mohammed road, Bauchi road and Tafawa Balewa road.



Location map-Central Market(source:JMDB,Jos,Plateau State)

5.4 ANALYSIS OF SITE

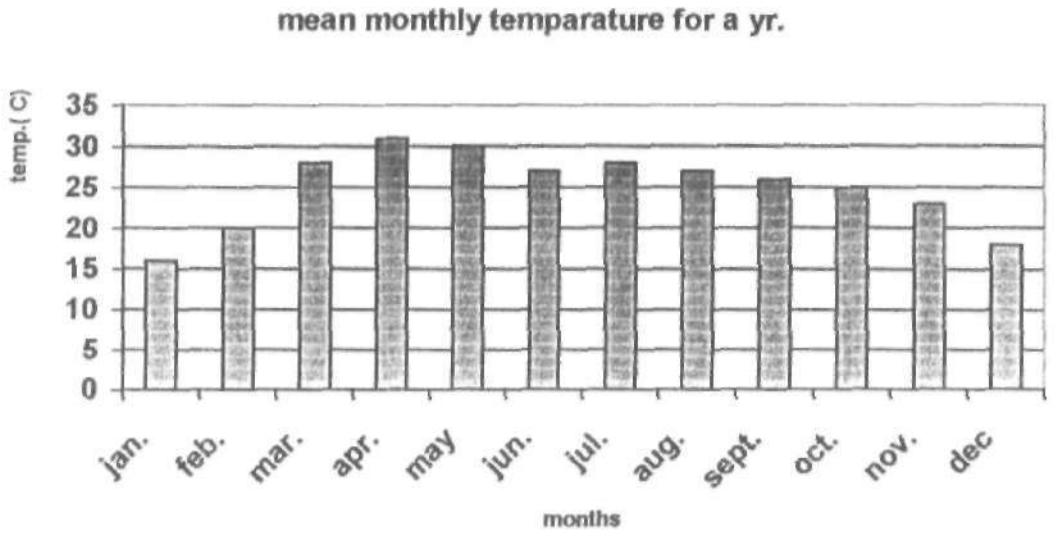
5.4.1 Size: The site occupies a floor area of approximately 72,000square meters. It is bordered by Bauchi road to its north, the Dilimi area to the east, the Old Jos University Teaching Hospital (J.U.T.H) and Terminus Railway Station to its south and the shops and shopping precint of Ahmadu Bello Way to its west. The size of the site has been a constraint in the past, thus the site is being expanded into the present J.U.T.H space.

The hospital occupied this space temporarily and is presently moving to her permanent site in the Rayfield area.

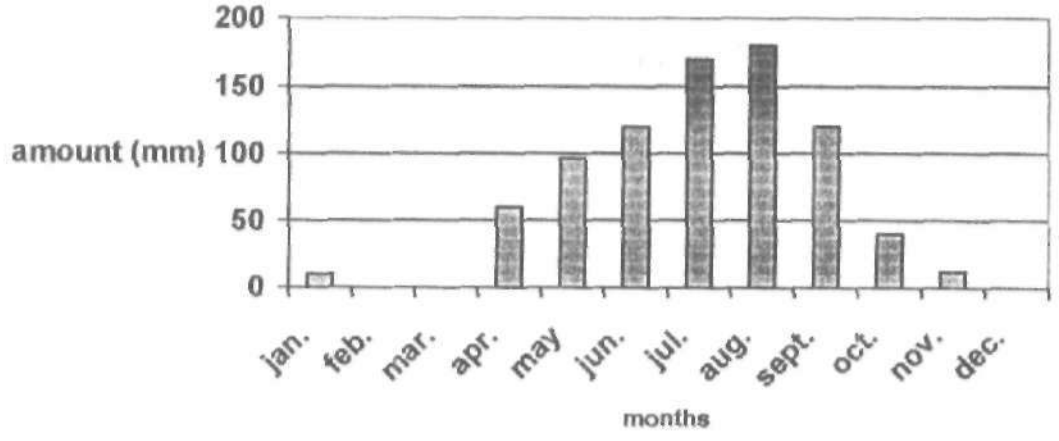
5.4.2 Climatic Conditions

The main factor responsible for the unique climatic condition of the Jos Plateau is its altitude. This is a major influence on the temparature. Its location also places it along the path of the seasonal inter-tropical air masses. The dry season is dominated by the north easterly dry tropical continental air masses popularly known as the harmattan (October to March), while the wet season is dominated by the south westerly moist tropical maritime air masses (May to September). The amount and distribution of rainfall, temparature, relative humidity and wind speed follow these two seasons.

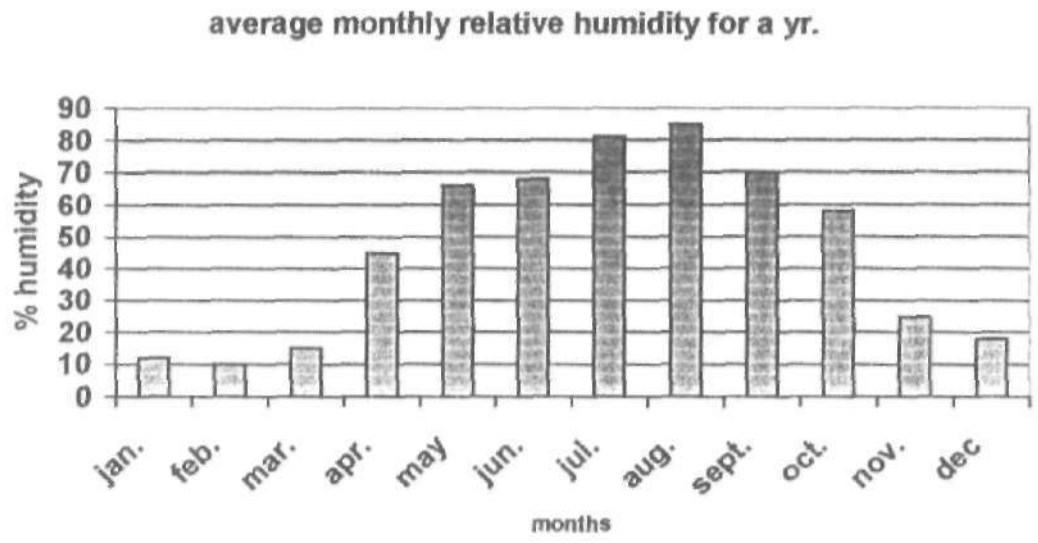
Temparature: Compared to other parts of the country, the temparature of the Jos Plateau is low mainly due to its high elevation above sea level. Its lowest temparatures are experienced in the months of December and January, sometimes falling as low as 8° C while the warmest months are the months of March and April with temparatures rising as high as 32°C.



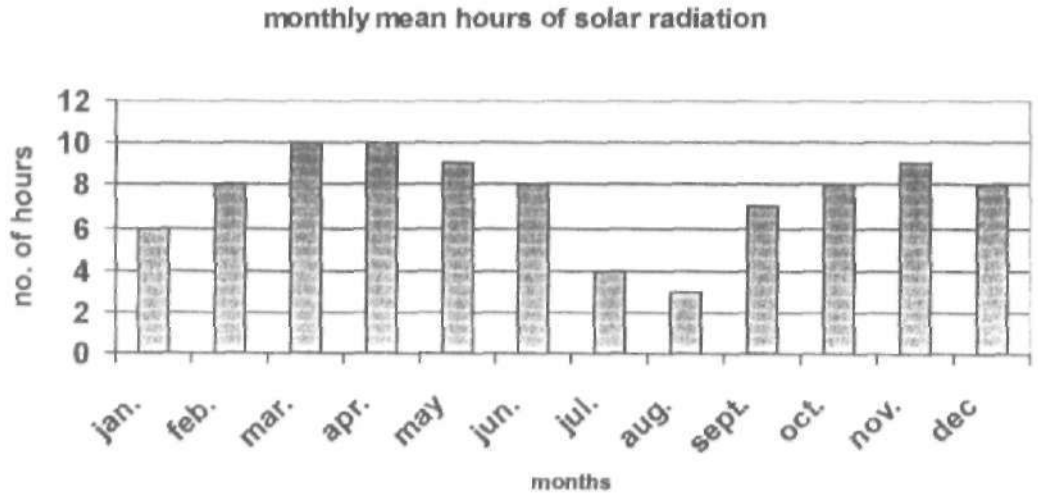
Rainfall: The Jos Plateau like other parts of the country experiences two seasons, the wet and the dry seasons. The wet or rainy season stretches from April to October while the dry season is from November to March. The annual average rainfall is about 1400mm while the months of July and August experience the most rainfall sometimes for up to 48 hours at a stretch.



Humidity: Relative himidity is highest in the rainy season, sometimes geting as high as 90% and in the dry season as low as 10%.



Sunshine: Because there are longer days than nights during the dry season, Jos town experiences its highest sunshine hours between the months of November and February and this is sometimes as long as 10hours/day. The least amount of solar radiation is received in the month of august- about 3hours/day because of the constant downpour.



Site climate: Though the prevailing climatic conditions are the same for the entire Jos Plateau, slight variations are noticed in the site due to certain features and

characteristics peculiar to the site. The site is located in an urban and built up area, thus the temperatures are slightly higher than recorded in other parts of Jos town. The site is also devoid of any vegetation and natural features that can make the site climate more favourable.

Summary/Recommendations:

i. The almost constant rainfall in the months of July and August necessitates the provision of covered walkways to protect the market users at such times.

ii. Planting of trees, shrubs and green areas will improve comfort levels of the site climate.

iii. Shading devices are required particularly west of the sun to reduce the effect of the setting sun.

5.4.3 Slope Analysis

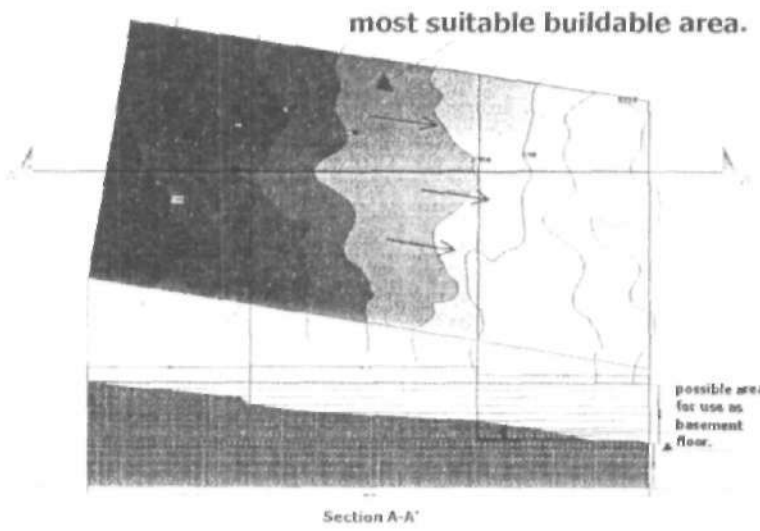


Fig. 5.1 Slope analysis

The site slopes 1/80 from west to east. This difference in levels is significant enough to accommodate a basement floor. The slope will also ensure effective surface water

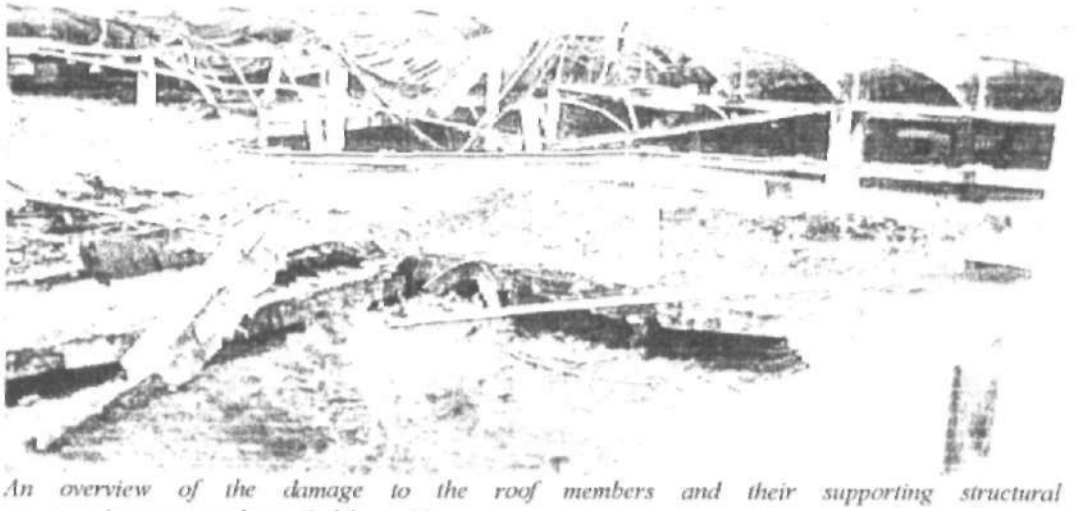
drainage from the site. Most of the site is paved but will necessitate the use of ramps and stairs to connect the different levels.

5.4.4 Damage Assessment

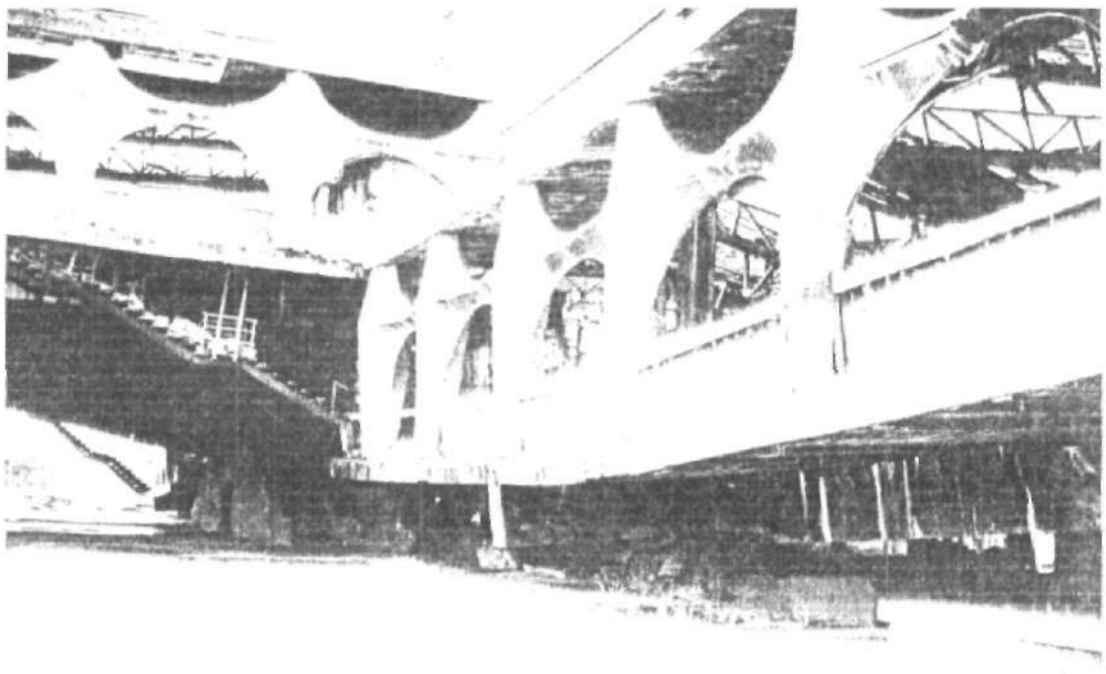
A physical survey of the site shows that most of it lies in ruins of the fire which destroyed it. A pictoral documentation of the damage on site is shown below.



Damage on the semi-vaulted roof and its steel members.(source:authors field work)



An overview of the damage to the roof members and their supporting structural members(source:authors field work)



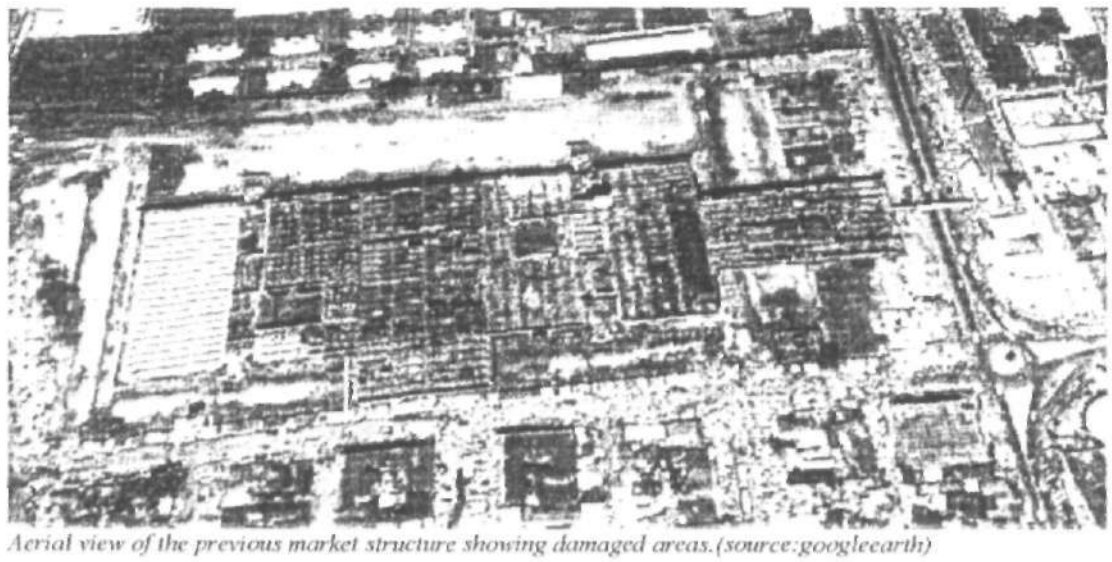
Total failure of support columns led to the collape of the upper floor. (source: authors field work)



Structural damage particularly affected the ground floor which is fast dissappearing under the weight of the collapsing first floor. (source: authors field work)



Water collecting on the exposed walkway now sagging. (source:authors field work)



Aerial view of the previous market structure showing damaged areas.(source:googleearth)

Summary: The images above clearly show the damage on site. The entire site is in a dilapidated state as even the structures that werent affected in the f ire have deteriorated due to lack of use in for last 6years. An estimated 76% of the site in damaged with over 50% of the damage being structural.

Building laws in many parts of the world use cost as a determinant for the reconstruction or demolition of fire damaged properties. Most of them do not permit repair of a building damaged by fire, decay, and storm or otherwise to an extent greater than 75 percent of its assessed value above its foundations, the assessed value used being the current assessed value of the building. The scope of work and lowest estimate must clearly show that the repair of fire damage can be carried out for less than 75% of the assessed value of the building. If the lowest estimate is more than 75% of the assessed value of the building, the building is marked for demolition.

Recommendation: For damage this extensive, it would be best to demolish the entire structure. In terms of cost effectiveness, structural stability and architectural design, this would be the best recommendation. Fortunately, the plateau state government has already declared her intent of doing just that.

5.4.5 Traffic Flow Analysis

Access and Parking: The major access road leading to the site is from the Murtala Mohammed way. Other possible points of ingress and egress are the roads bordering the site on the north and east ends i.e. market road and Dilimi streets respectively.

The busiest access road is the Murtala Mohammed way/Bauchi road as the road runs through the entire Jos town. To ease access into the site, collector roads will need to be created as well as increased entry and exit points particularly for pedestrians. Presently however, the site is off limits to the public.

Parking is mostly on the street parking which is inadequate as motorists park as far down as Rwang Pam Street, two streets away from the marketplace just to find an

available lot. Basement parking will be used to take advantage of the slope of the site. In addition, off-site parking areas will also need to be created to cater for this problem.

Traffic: The site is bordered on three sides by roads. As such,a study of the traffic flow(both vehicular and pedestrian)around the site is imperative.



Fig.5.2 The site bordered by the roads which influence traffic flow around it.

The roads in study are;

i. Murtala Mohammed Way/Bauchi Road- This is the major road that passes through the entire city of Jos and is the major access road into the site. This road experiences the most northbound traffic congestion for a number of reasons;

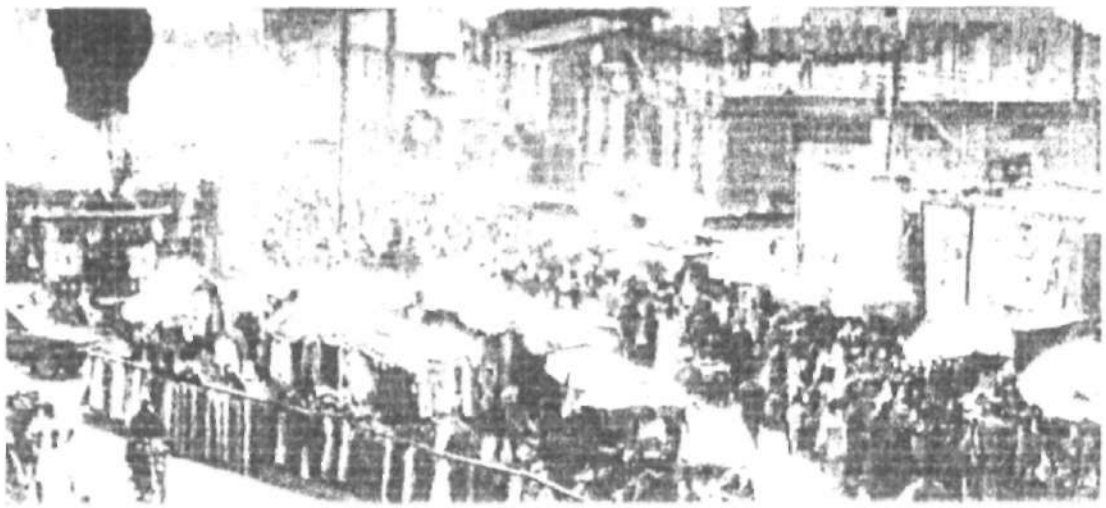
   - A lot of commercial activities as well as offices are located along this road. Thus, most traffic movements are from the residential areas in Jos town to or through this road.

- The road connects Bauchi road and its surrounding districts to the rest of Jos town.



Nothbound traffic queues along Murtala Mohammed Way(source: authors field work)

ii. Market Street- This road borders the marketplace to the north. When the burnt market was operational, this street was heavily congested due to the role it served linking the front of the market to the back as well as serving as a shortcut from Murtala Mohammed Way/Bauchi, Tafawa Balewa and Kashim Ibrahim Sreet to Market Street. This served to increase the traffic at the Tafawa Balewa/Market Street intersection (at the round-about). Presently, the street is not motor able as it has been taken over by market traders and pedestrians.



Heavy pedestrian traffic at the tafawa balewa/market street intersection. (source: authors field work)

iii. Dilimi Street- This Street borders the site to the east. It provides access to the back of the site.



Traffic along dilimi street-not congested. (source: authors field work)

Summary

A study of the roads in the study area reveals the following;

i. Through-traffic from Murtala Mohammed way and Bauchi road are heaviest.

ii. Other congested roads are the Kashim Ibrahim Street and Tafawa Balewa Street. Traffic flow from these streets to Murtala Mohammed way is heavier than vice versa.

iii. Rush hour traffic is experienced at peak traffic hours which include 8-11 A.M hours, 4-7 P.M hours and weekend peak hours(noted to be on Saturdays)

iv. Queues on Murtala Mohammed Way and Bauchi Road during these rush hour periods are as long as a kilometre from the round-about at A.M and weekend peak hours and longer than that at P.M peak hours while Queues along Tafawa Balewa street and Kashim Ibrahim street are an average of 500m at A.M and weekend peak periods and as long as 800m at P.M peak periods.

Recommendations

i. An alternative route for the Murtala Mohammed Way/Bauchi Road through-vehicular traffic needs to be created. This can be done wi th the introduction of an overhead bridge taking off before the intersection of Kashim Ibrahim Street and Murtala Mohammed way and ending after the round-about along bauchi road. This will serve motorists not going to the site.

ii. Market Street should be converted to a pedestrian-only street. Thus, the site will be able to be accessed by pedestrians from that street.

iii. A possible point of entrance and exit can be introduced along the sites' south boundary where J.U.T.H presently occupies. 5

iv. A collector road should be introduced from the Murtala Mohammed way to link the major road to the proposed access road into the market. This will serve to drastically cut short queues of inbound vehicular traffic to the site from the major road.

v. Another possible entrance and exit can be introduced from the Dilimi Street since it experiences the least traffic congestion.

5.4.6 Services

Fire: The burnt down market was constructed of reinforced concrete and steel roofing members. This is the most common material used for market structures and as concrete has good fire resistant properties. The proposd market will be of similar construction but will take the following into consideration in the design;

i. De-centralized design will provide significant fire breaks between different parts of the market, thus, spread of fire is inhibited between adjacent market sections.

ii. Access of fire fighting equipment and vehicles to be as close to the building as possible. Every part of the building should be accessible in the event of a fire.

iii. Fire escape routes to be easily located and accessible with minimum travel distances in any given direction.

Drainage: The site slopes to the east direction. Thus, all drainages will be channeled to flow likewise with collection/service points at the necessary intervals.

Lighting: The de-centralized planning of the marketplace will ensure that every part of the market structure is well serviced with natural light.

Delivery of goods: A suitable location for the service entrance is the back of the market, from dilimi road. The service route proposed will go around the shopping areas

Waste disposal: Provision of well defined collection points along every circulation axis will go a long way to incite proper waste disposal.

5.5 CONCLUSION

Deductions made from the sites' analysis in addition to other deductions obtained in the course of this research will go a long way to ensure the new design of the marketplace is very functional and befitting for its intending purpose.

CHAPTER SIX

DESIGN PROPOSAL

6.1 DESIGN CONSIDERATIONS FOR MARKETPLACES

The design of a marketplace demands a logical and functional approach as such buildings answer to the unique needs and social cultures of the community which it serves. The design takes into consideration various factors depending on the function the market is to serve and the users who it serves. There however are a number of common design considerations regardless of the market type or function, its location, and the market culture of its users.

i. Function: The design brief of all the functions the marketplace is to serve is a major design consideration. Though all marketplaces are primarily centers for buying and selling, there are quite a number of specialized markets (for example flea markets, antique markets, food markets and so on). Sales are also carried out at different levels such as retail, whole sale or bulk. These functions in as much as they influence the design, should be made as flexible as possible as the marketplace is a dynamic environment and functions may need to be adapted to suit the changes. The function of any given marketplace also affects other factors such as its size, building construction method among others.

ii. Location: This could be in an urban area or in the suburbs or for a small community. In the urban area, it could be located in the city center or at the outskirts of town, off the town center. These various locations call for different design considerations as factors such as circulation and traffic, accessibility and size and land use are influenced to meet each specific need.

Some locations, especially of already existing marketplaces also double as historical/heritage sites. Such locations call for preservation or other such renewal strategy as is decided upon by the relevant authorities.

iii. Services: Services such as the delivery of goods, fire, waste disposal and lighting are major considerations in the design of any marketplace.

There should be access for goods to be delivered as close to the market stores as possible.

In designing for fire, the major considerations should be;

a. Travel distance which is the maximum distance from any given point in the market structure to an exit point (fire escape exit).
b. Number of exits: This depends on the estimated number of users of the marketplace at the peak periods of activity.
c. Ease of access of fire trucks and other fire fighting equipment. As applies to delivery trucks, fire fighting vehicles should have as close an access to every part of the building as possible and the entire market should be within close proximity to a fire station to minimize response time.

Natural lighting is best opted for in most developing countries as they require almost no maintenance.

Waste is a constant by product of market operations and a good system of disposal is an important consideration.

iv. Land use: The marketplace should be designed to relate harmoniously with the surrounding built environment and not conflict in land use.

6.2 PLANNING CONSIDERATIONS

In addition to planning regulations and by-laws guiding the design of commercial spaces, in marketplaces, the following factors should also be given much consideration;

a. Accessibility for pedestrians and car users.
b. Parking adequacy for the motorists
c. Circulation and way-finding.
d. Size and space appropriation based on need
e. Security and safety considerations.

6.3 DESIGN BRIEF

The proposal for the central market Jos is one that should fit into the category of a historically significant marketplace because that is precisely what it is.

The proposal for the marketplace is a shopping precinct covering a wide variety of shopping and shopping related activity as is commonly found in other historic marketplaces still operational in other parts of the world.

It is to be a hub and focal point of the city center a tourist destination, an information center, an entertainment center as well as a leisure stop.

A single marketplace cannot cater for the entire range of shopping items as many specialty markets exist in these parts of the world such as the flea market (fairly-used clothes and items), meat market, tomato market and so on.

From the research carried out specifically on the central market, Jos, the market section least provided for is the fresh food market. These small scale sellers and their wares have become an eyesore around the market environment. They need to be properly relocated. Thus, a fresh food market is included in the brief as a specialty market.

Pooled from deductions made from the analysis and synthesis of the study area, findings from case studies and other observations made, the facilities that need to be provided include;

A minimum of 1000-shop market structure to include fresh food stalls, retail and departmental stores and a provision for hawkers.

A minimum of 1000 parking lots, mostly off-site.

Administrative offices for the market authority.

Banking facilities/A.T.M

Restaurants and eateries.

Parks, leisure/rest areas and children playground.

A fire station.

Borehole and water reservoir.

A police post.

Movie theatre.

City mall.

Generator house.

A transport/marshal unit and a bus park to cater for commercial road users.

Church and Mosque.

Rest rooms

A civic center

A shopping plaza

A food market

6.4 SCHEDULE OF ACCOMODATION.

S/no.	Spaces		Size(m)	Area (m2)	No.	Total floor area.
1.	Fresh produce market	Stall 1	1.5x2.5	3.75	200	750.00
		Stall 2	1.5x1.5	2.25	300	675.00
2.	Shopping plaza	Retail stores	4x5	20.00	400	8000.00
		Departmental stores	6x8	48.00	100	4800.00
3.	Hawkers/open air	——	30x30	900.00	2	1800.00
4.	Parking	On-site(staff)	2.5x5	12.50	100	1250.00
		Off-site	2.5x5	12.50	1000	12500.00
5.	Admin. Area.	Office	4x4	16.00	1	16.00
		Records	4x4	16.00	1	16.00
		Store	6x4	24.00	2	48.00
		General office	6x6	36.00	1	36.00
6.	Bank	A.T.M points	2x2	4.00	2	16.00
		Banking hall	10x10	100.00	1	200.00
		Offices	4x3	12.00	5 X2	120.00
		Money vault	4x3	12.00	1	24.00
		Managers' office	4x4	16.00	1	32.00
		Garage(bullion van)	3x6	18.00	2	72.00
7.	Restaurants	Big	18x6	108.00	4	432.00

		Small		8x6	48.00	6	288.00
		Eateries		2.0m/person(20pp e)	40.00	4	160.00
8.	Fire station						
9.	Water reservoir/borehole						
10.	Police post	Offices		4x3	12.00	2	24.00
		Complains		5x6	30.00	1	30.00
		Cell		2x2	4.00	5	20.00
		Storage		4x4	16.00	2	32.00
		Rest/changing room		5x4	20.00	2	40.00
11.	Movie theater	Tickets		2x3	6.00	4	48.00
		Entrance foyer		10x4	40.00	1 X2	80.00
		Auditorium		(500x0.5)+150.00	400.00	1	800.00
		Stores/utility		4x5	20.00	4	160.00
		Rest/changing room		5x4	20.00	4	80.00
12.	Mall	Lobby/exhibition hall		10x10	100.00	2	200.00
		Departmental stores	Hairdressers	6x10	60.00	2	120.00
			Pharmacy			1	60.00
			Boutiques			4	240.00
			Music store			1	60.00
			Photo-shop			1	60.00
			Bookshops			2	120.00
			Supermarkets			2	120.00
		Eateries		8x6	48.00	2	96.00

		Business centers	4x4	16.00	2	32.00
13.	Gen. house		4x5	20.00	1	20.00
14.	Church		15x15	225.00	1	225.00
	Mosque				1	225.00
15.	Commercial bus park	Loading/off-loading	3x6	18.00	40cars	720.00
		Office	4x5	20.00	1	20.00
16.	Rest rooms	Ladies	10x4	40.00	1	40.00
		Men			1	40.00

6.5 FUNCTIONALITY CHARTS



The proposed market can be categorized into four major areas all of which are in some way related in function. The relationship strength between the major parts of the marketplace is shown above while a further breakdown of the functional flow between spaces is shown in the chart below.

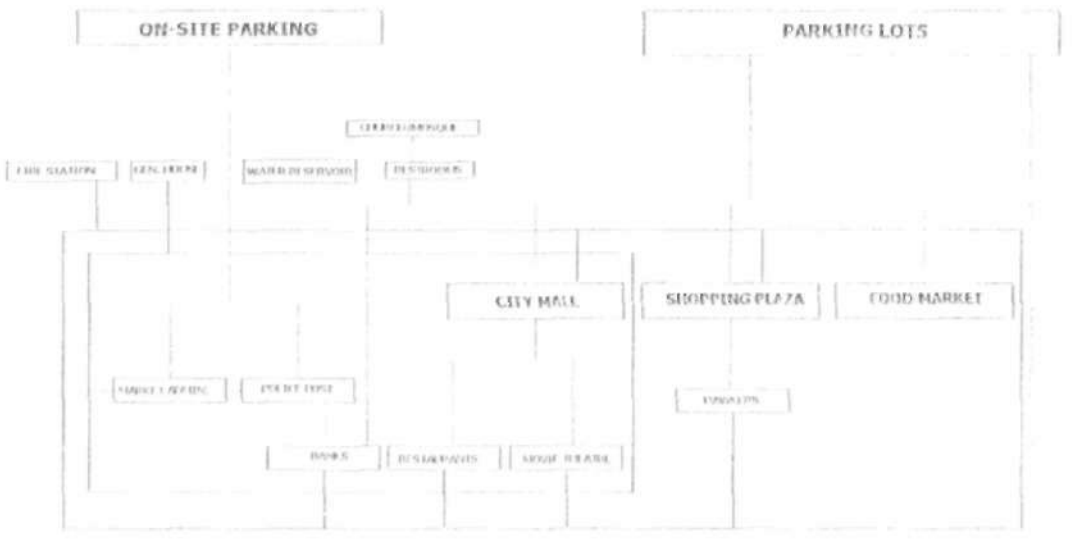


Fig. 6.1 functional flow chart

6.6 DESIGN CONCEPT

This is the central idea or theme that informs the design decisions on a project. The design concept for the marketplace is a combination of a number of concepts, all of which evolved from the design process beginning with the site analysis and synthesis.

6.6.1 Site Concept

This is a logical consequence of the functionality zoning and that for activity and noise. The noise and activity zoning shows the area of heaviest activity which is also the most populated area in terms of human traffic. This is along the main pedestrian access into the market-Murtala Mohammed Way and Market Street. The food market is hence located for easy access from both roads. The commercial park is also situated close to the food market as they are strongly related and is also a high activity area.

The city mall is on the other hand, the area of least human activity and population except for the movie theatres which it houses. This however is a facility almost exclusively used at night so most of its users will be assumed to be vehicle owners. The city mall is thus located at the south end of the site.

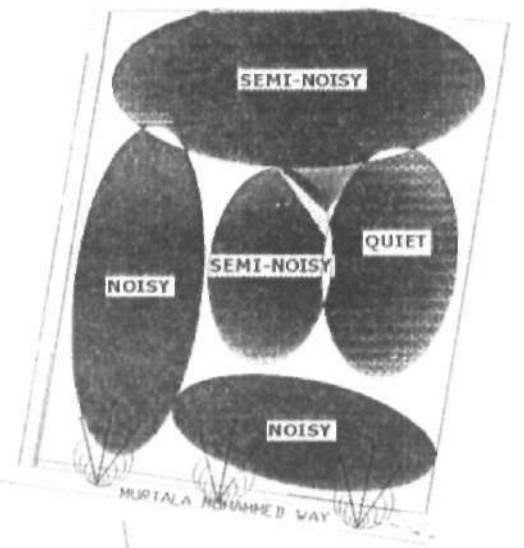
The shopping plaza is best located between the food market and the city mall as it relates strongly with both of them. Its location will also provide a suitable buffer between the two spaces. It is also easily accessible by both motorists and pedestrians.

The park, leisure and rest areas which are facilities to be used by all market users are interspersed al around the marketplace. To prevent the abuse of those spaces, they'll require the use of demarcations and barriers of some sort to serve this purpose, yet not obstruct the visual enjoyment/appreciation of the garden parks.

Facilities such as the conveniences are located such that the predominant north-easterly wind does not direct foul air into the rest of the market, rather, away from it.

Linking all the pedestrian gates and the market structure, covered walkways are used to protect market users from rainfall and solar radiation. The walkways also make provision for rest stops along the way.

NOISE AND ACTIVITY ZONING



FUNCTIONALITY AND SITE CONCEPT

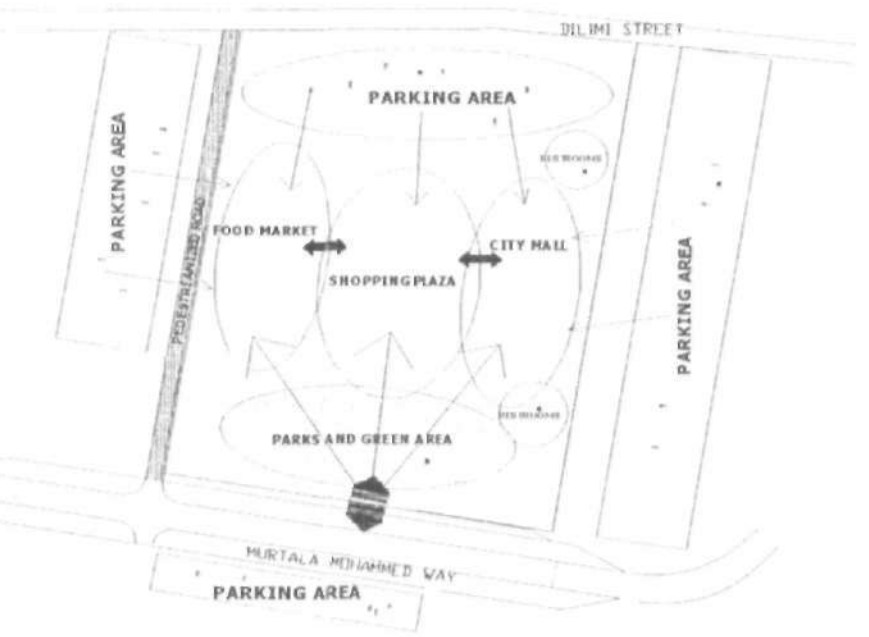


Fig. 6.2 Zoning

6.6.2 Form Concept

The form concept for this marketplace is evolved from the traditional market squares and courtyard, a shape which offers maximum lighting, ventilation, flexibility in expansion, adaptive re-use, and circulation.

1) The traditional market square.
2) Its adapted shape for easy expansion and circulation (indicated by the arrows).
3) A combination of three market squares for better flow, planning, circulation and flexibility in expansion.

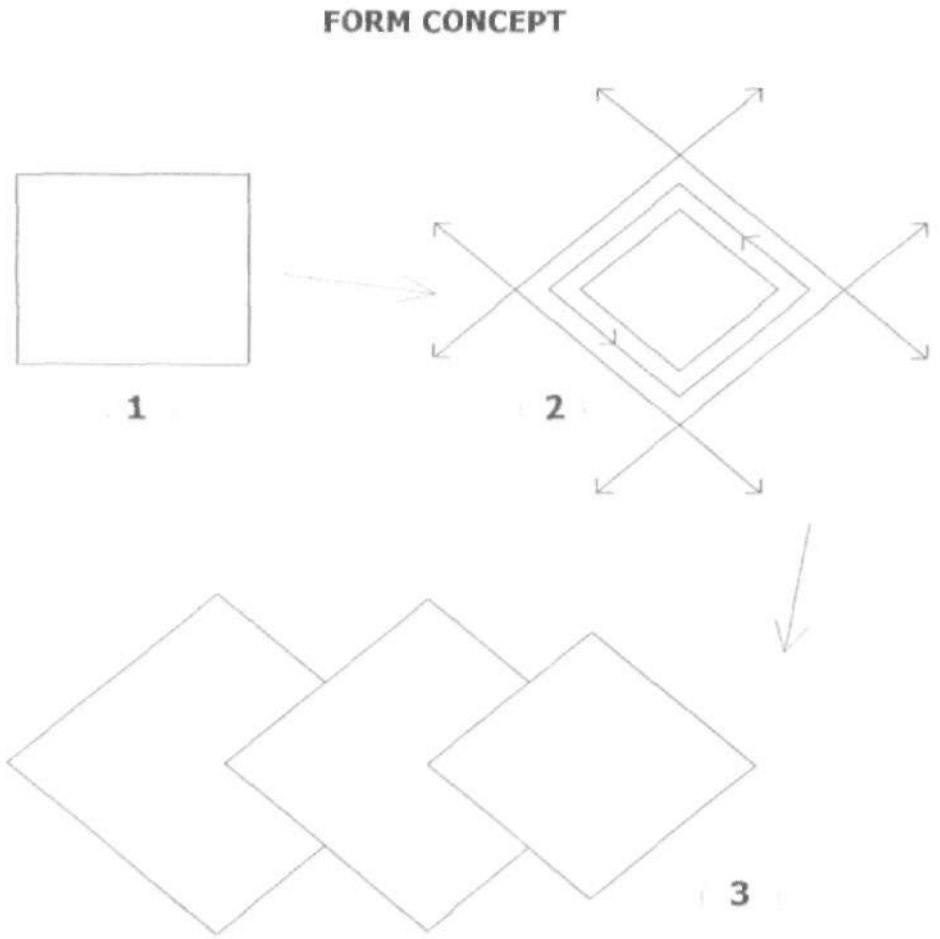


Fig. 6.3 Form concept

6.6.3 Service Concept.

i. Lighting: The use of courtyard spaces ensures adequate light and ventilation penetrates the market structure.

ii. Drainage/waste disposal: The site naturally slopes from west to east so drainage will also follow the natural gradient with collection points at the intersection point of two or more drains.

iii. Fire: maximum travel distance in any given direction is 45m. Fire escape stairways are located at either side of the three-storied shopping plaza each of 1.8m width of stairs and 150mm riser. Fire fighting equipment has close access to every part of the building. In addition to this, a watch tower and fire station is located at the highest point of the site with good visibility over the entire site and also to minimize response time.

6.6.4 INNOVATION CONCEPT

The prevalent Nigerian market culture which has time over time proved to be irresolvable is that of hawkers. They put the legitimate shop owners out of business by being readily available and strategically locating themselves along the way such that customers get to them before the proper shops. And because they are small scale and can be quite mobile, attempts to disperse them simply leaves them relocating to another part of the market. The problem has come to be accepted as unavoidable in any market environment. Here, a concept which will greatly discourage if not curb this challenge is used. Provision is made for the hawkers but their patronage is discouraged by limiting its access to an indirect one. Thus, the plan is to confine the hawkers to the courtyard space of the shopping plaza but limit its access via the first floor. Hence, a market user

will be forced by design to do twice as much work to patronize the hawkers. Since there's no access from the ground floor, he/she will have to go up to the first floor then back down into the courtyard. This is a big discouragement as one of the basic principles upon which a market functions is direct and easy accessibility.

This is a new concept that will take care of or reduce the challenge posed by the hawkers to the legitimate shop owners.

6.7 DESIGN REPORT

6.7.1 Site Plan

i. **Total built-up area**: The market site covers an approximate ground floor area of about 96,250sq.m. The market structure and all its ancillary facilities cover a ground floor area of about 30,000sq.m, approximately a third of the entire site as against the burnt down structure which occupied a whooping eighty percent of the site leaving inadequate space for vehicular circulation or expansion.

Lots of free outdoor spaces in addition to serving for possible future expansion can serve as green areas which in themselves could later be converted to buildable areas.

ii. **Weather protection**: As the bulk of circulation within the market premise is pedestrian, provision is made for their protection from harsh weather conditions in the form of covered walkways linking all the major pedestrian entrances to the

iii. **Vehicular and pedestrian circulation**: The site is also designed such that vehicular movement is restricted only to and from the parking lot, except for delivery trucks and other service vehicles. Thus, all other movement on site is pedestrian to simplify the traffic on site and to make easy access for service vehicles to the structures when the need arises.

There are at least ten pedestrian gates to provide access into the marketplace from the various parking lots around the site. There are however only two vehicular entrances in keeping with the resolve to limit as much as possible circulation on site to pedestrian; to the staff parking lot and the fire station entrance.

iv. **Market sections**: The site is planned such that it employs the natural slope of the land to section off the marketplace. The green and leisure areas are on the highest parts of the site giving a good view of the entire site. The parking lot is situated partly below ground level and the main market structure is sandwiched between the two on the area with the biggest expanse of relatively flat land.

v. **Location of facilities:** Facilities such as the fire station, conveniences, information center, staff parking and worship areas are strategically situated on the site to best meet the need of their users for example, the fire station and tower is located at the highest points of the site to give the best vantage point over the whole site, the information center is situated such that it is accessed directly from the major market entrance and within easy reach from all the main entrances which visitors are likely to use, the staff parking is situated to conveniently serve all parts of the market.

A commercial park with offices for the park authorities is located behind the food market to serve as a loading and off-loading area for commercial road users coming to and from the market from all around the Jos metropolis.

There are four parking lots on every side of the market to serve other road users coming from different directions.

6.7.2 Floor Plan

The market complex itself comprises of three major parts; the fresh food market, the shopping plaza and the city mall all oriented north to south and arranged in order of their activity level requirements.

Unlike the previous market, where facilities such as banks were located right in the middle of the market structure with market activity going on all around, heightening stress levels, security threats and fostering anxiety among the bank staff as well as the customers. Here, the banks are situated in the least activity area-the city mall with their entrances separate from the mall entrance but accessible from within the mall. A.T.M points are also located around the bank premises. Thus, they are easily accessible by market users and yet secure by reasonable standards. They are also easily accessed from the parking lots to the south, east and west of the site and also from the on-site parking lot.

The shopping plaza houses two shop categories according to size. It also incorporates in its courtyard an authorized hawker's space accessed from the first floor of the plaza.

The food market is divided into two stall sizes and covers fourteen categories of fresh and dry food items. The space allotted to each item (shown color-coded on plan) was determined by this thesis research into the adequacy of spaces provided in the cases studied.

The entire market structure is designed for easy way finding, - another problem which the previous market had.

Entertainment facilities in the marketplace are provided in the city mall section of the market with a market museum/gallery in the main mall lobby and the movie theaters located at one end of the complex with their separate entrance point. The green areas, other than being used as rest areas will also provide shaded sit-outs and scenic views which is hoped to be taken advantage of by tourists and photographers.

CHAPTER SEVEN

CONCLUSION

7.1 SUMMARY

The challenge of urban renewal and its attendant problems has, is and still will be a concern for every growing urban area. While it is not exclusively an architectural problem, the architect and architectural input cannot be extricated from it.

For every successful urban renewal scheme, the architect is needed right from start to finish as his influences are too great too be ignored.

In the modern city, one of the areas usually in need of renewal is the commercial area. Public spaces such as the marketplace which serves as an activity centre and core for many other spaces are key to renewing the urban areas in which they are located. Their successful renewal has a huge bearing on its surrounding areas.

For the design of marketplaces in urban centres, certain architectural factors are crucial to "getting it right". These determinants such as planning of the built environment and circulation among others have been explored in this research dissertation and a design proposal put forth to show that a renewal, through the redesign of a strategically located/significant architectural edifice can be achieved.

7.2 CONCLUSIONS

i. The architect is a major team player and decision maker indispensable to any urban renewal scheme.

Whether the decision being made is the determination of blighted property, the determination of the best renewal strategy to adopt for the blighted property or area or the psychology of man and his built environment-how such a renewal will affect the daily living activities of the end users, either beneficial or adverse, the architect is in the best position to ascertain it all. He serves as the 'human angle' in a renewal scheme as no other professional in the built industry can.

ii. Major architectural determinants crucial to urban renewal in a marketplace include planning, vehicular and pedestrian circulation, services and size of space appropriation.

iii. The best urban renewal strategy for the renewal of the Terminus market, Jos is a reconstruction as the damage in the study area is quite extensive and more harm than good will be done if any other strategy is employed.

iv. Successful renewal schemes for marketplaces have been carried out in other parts of the world. In such places, important considerations which made all the difference include the emphasis given to traffic functionality and circulation and a decongestion/decentralization of the market spaces and activities.

v. The urban marketplace is a powerful tool for renewal. This is because it is one commercial centre that so many other commercial activities revolve around and so a renewal of such places sends a ripple effect across its built environment.

In conclusion, urban renewal is a big phenomenon worldwide with the architect in his place and playing his part, his role as prime consultant, head, and leader of the building industry will not be threatened. Beyond that, our urban centres which stand an even greater threat will have a much better chance at successful, long lasting and sustainable renewal.

7.4 RECOMMENDATION

In the study of urban renewal, using the marketplace as a tool for the renewal, some major architectural team players have been determined, a further exploration of the operation of other markets types, locations should be done with a view of exposing even more of such determinants pivotal to the successful renewal of any such area.

An evolution of marketplaces is still going on around the world. Its given rise to terms such as shopping arcades, strip malls, mega malls, specialty markets and the like. A thorough look at the various market types, categories, and functions should be given with the aim of upgrading the built environment of our local marketplaces to suit local needs and letting go of old, dysfunctional means of buying and selling and market cultures which promote urban blight and decay.

A closer look should also be given to diversifying the roles our marketplaces play as was shown in the design proposal. This line of action should be pursued to heighten every urban market goers experience, increase benefits to the government and ease the work/challenge of renewal for such commercial urban centres.

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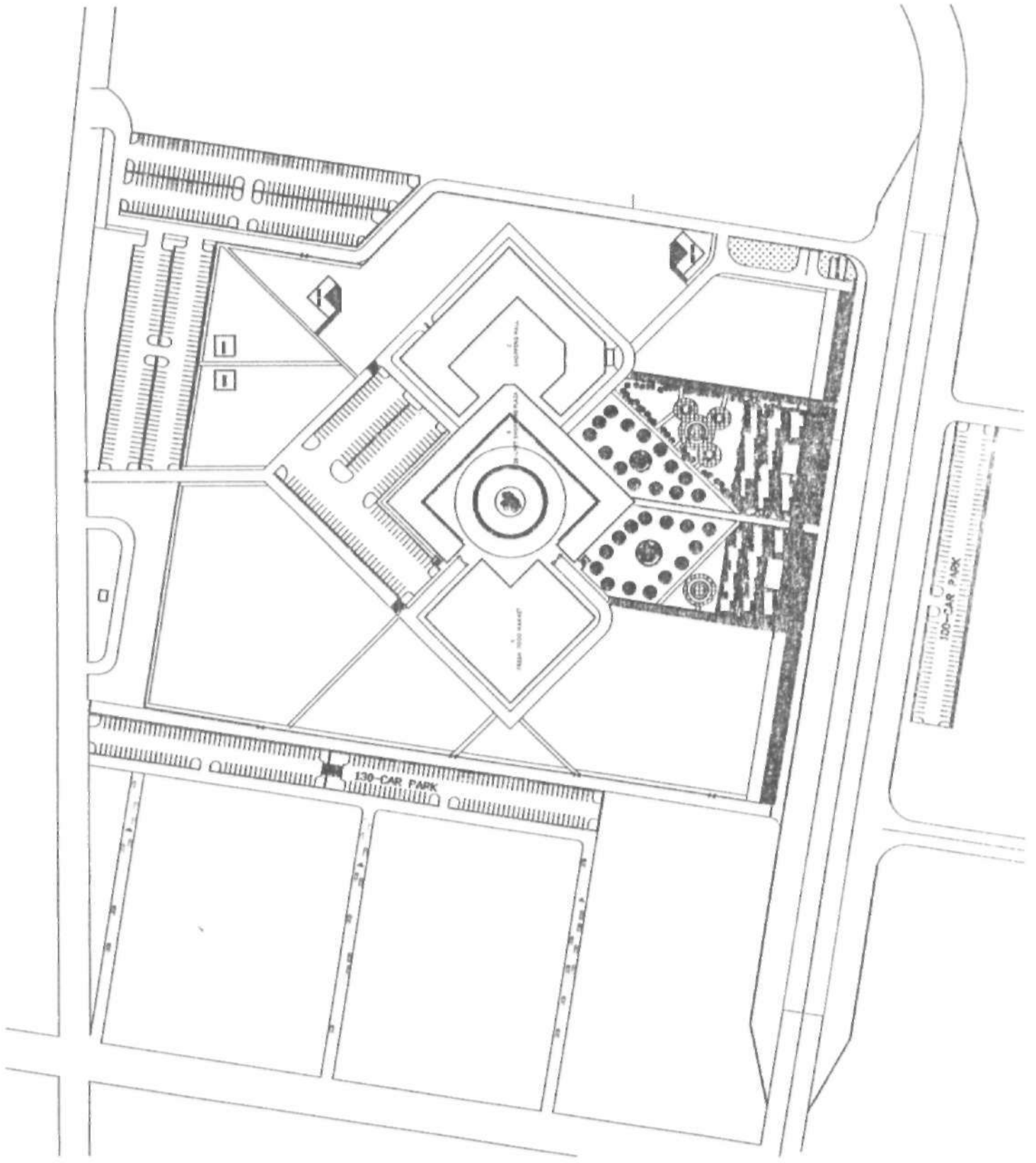
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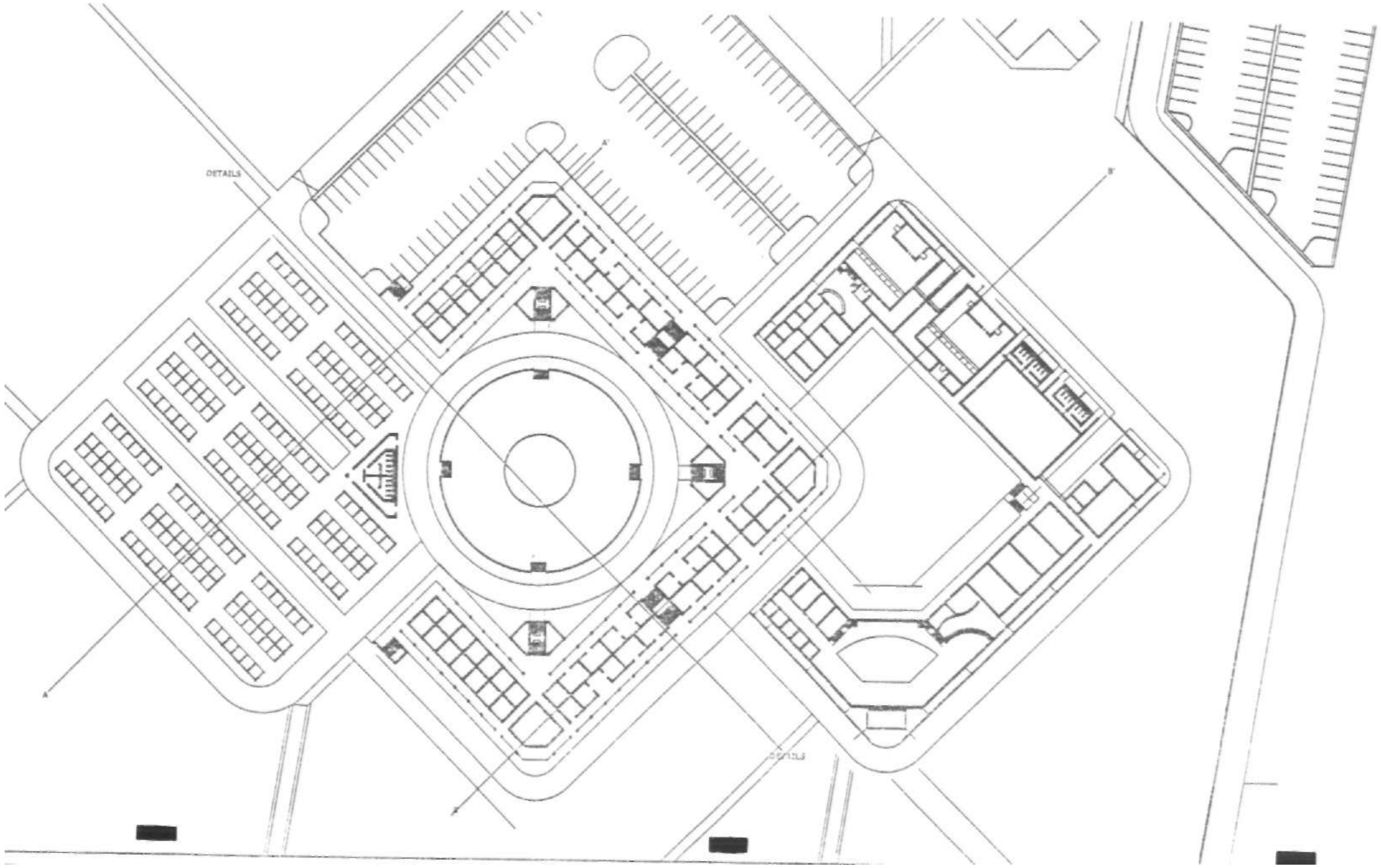
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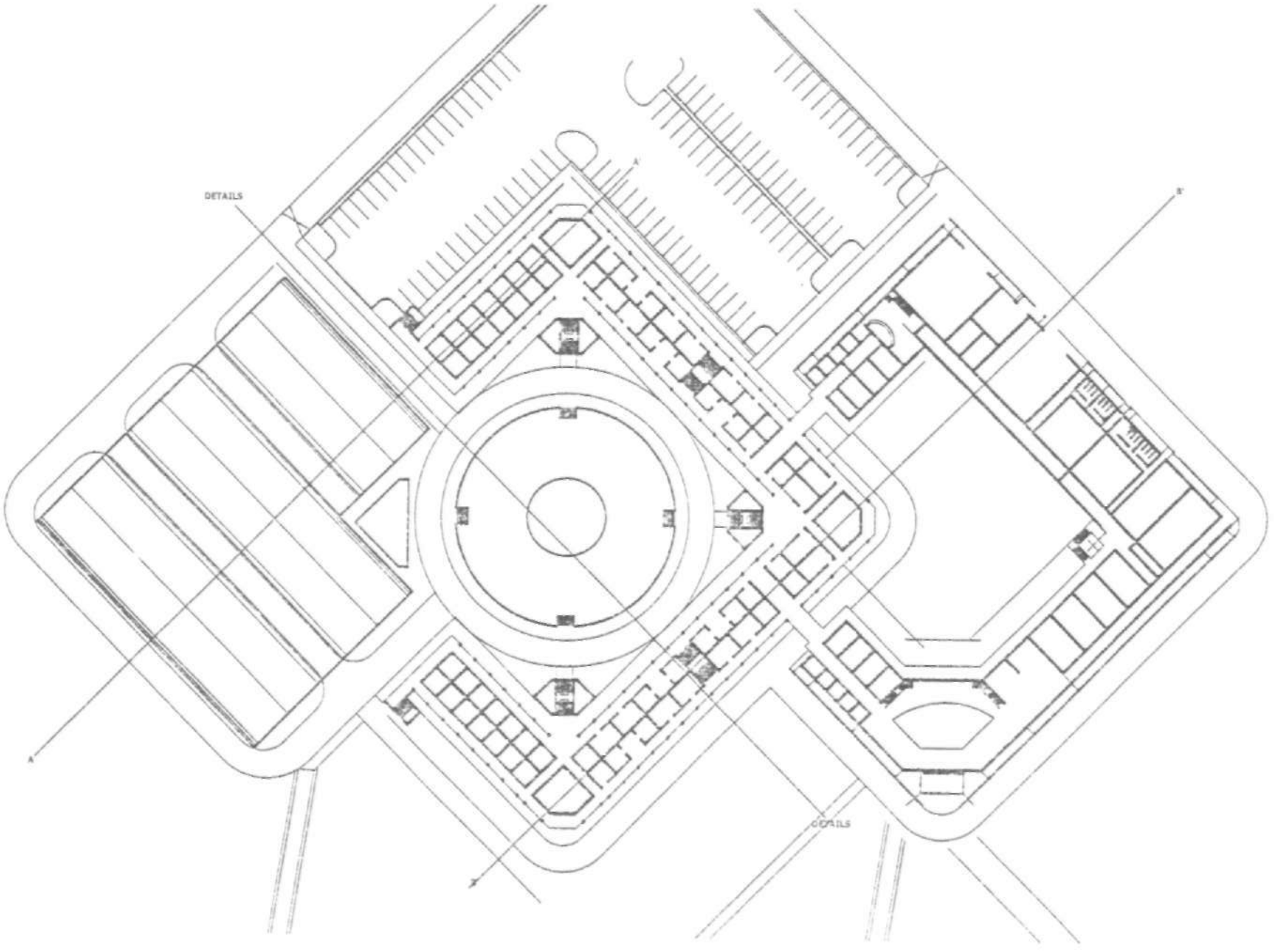
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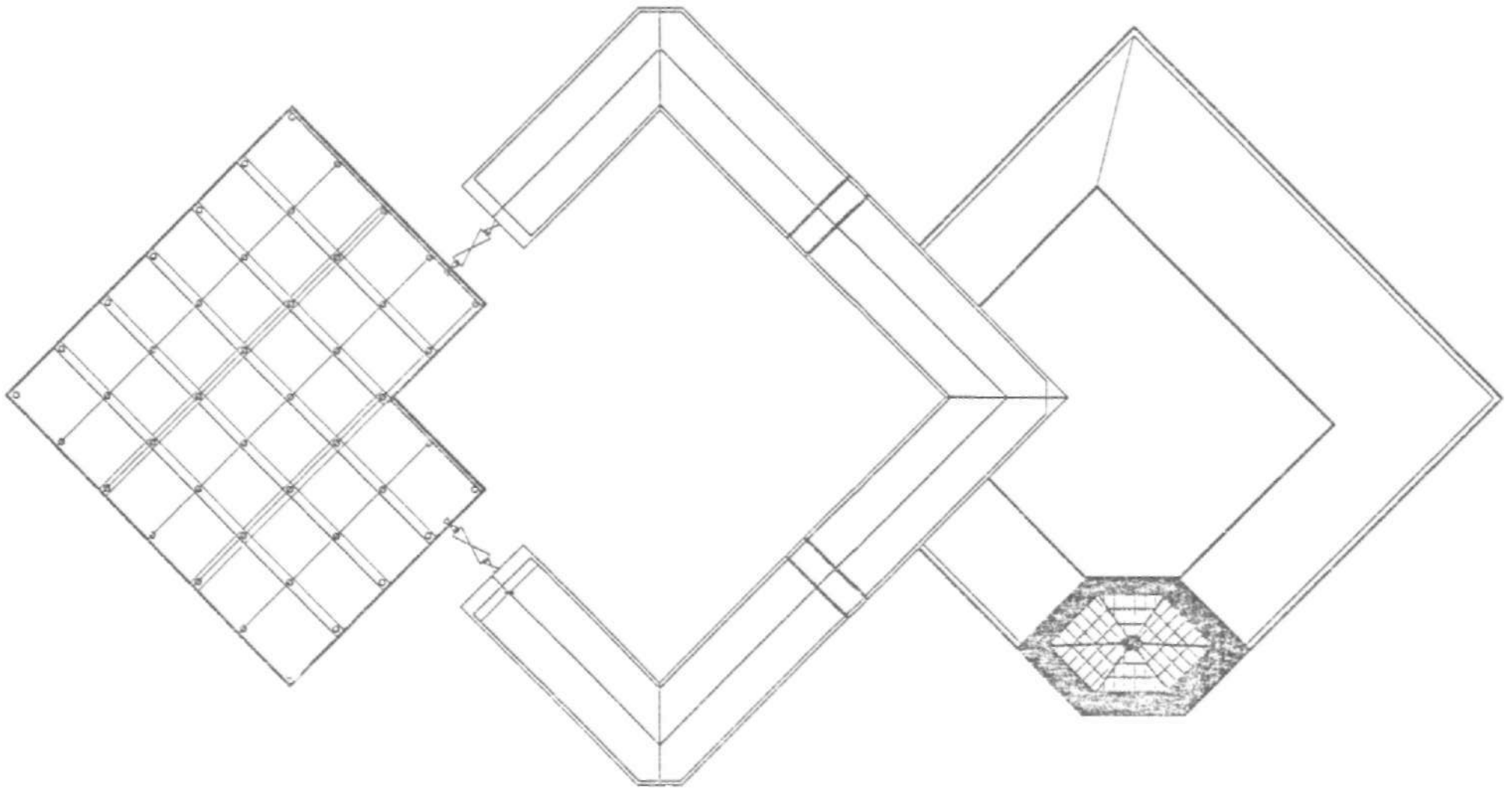
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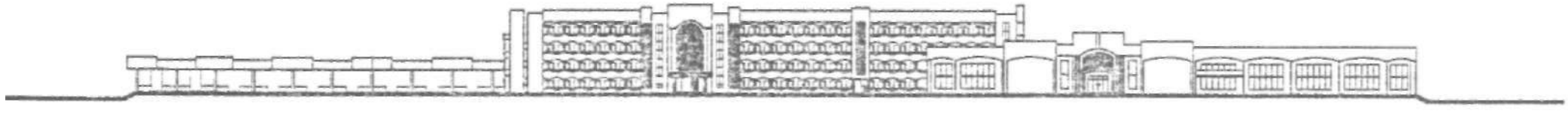

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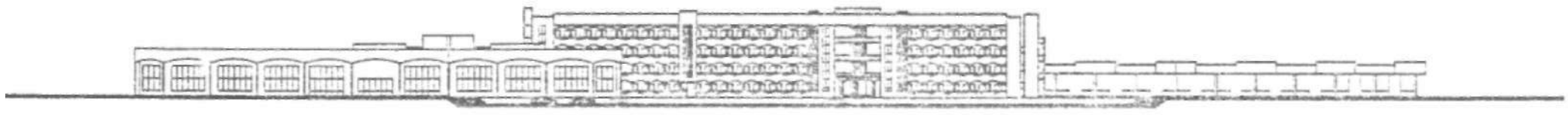

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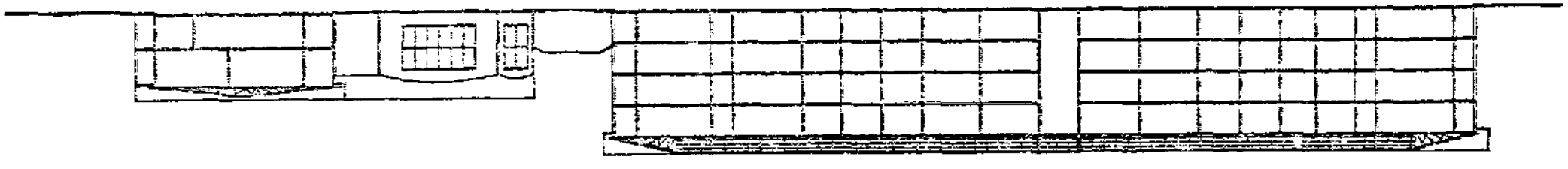
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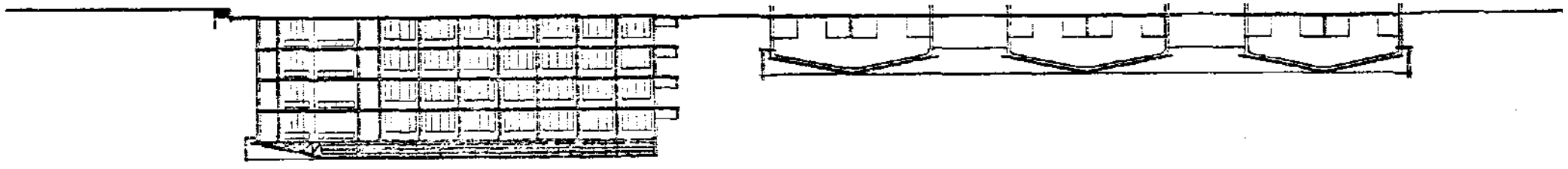




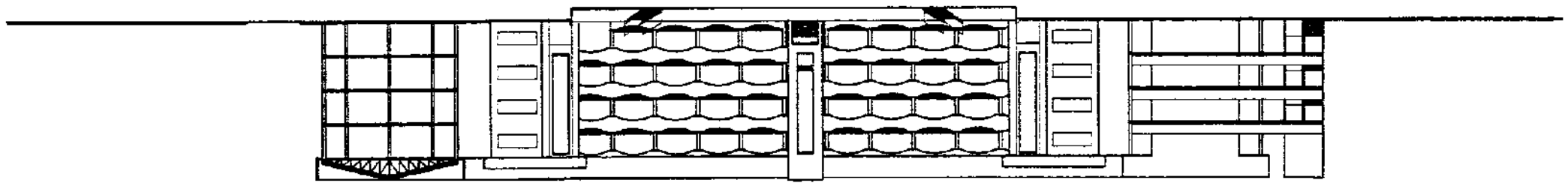


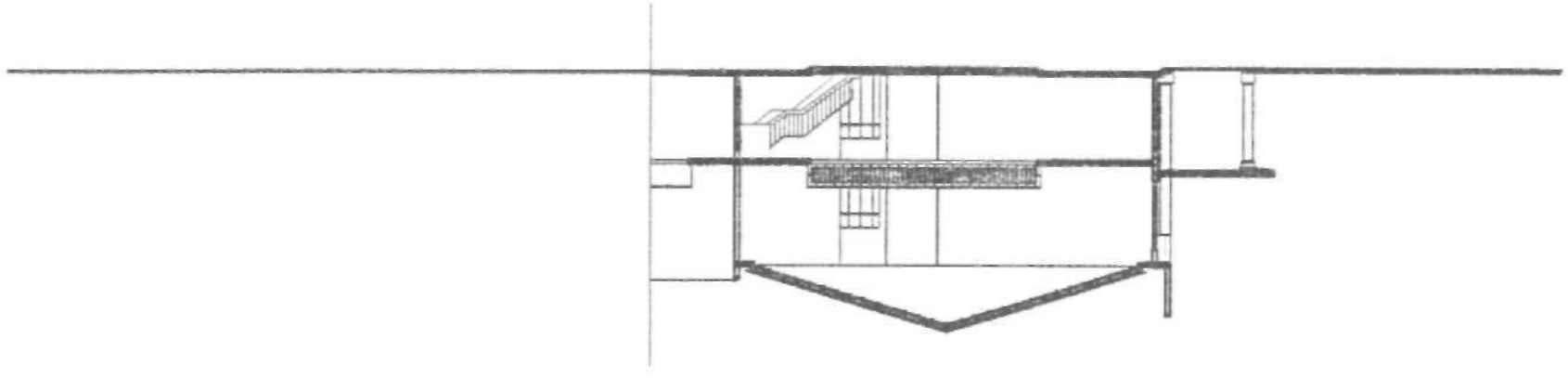


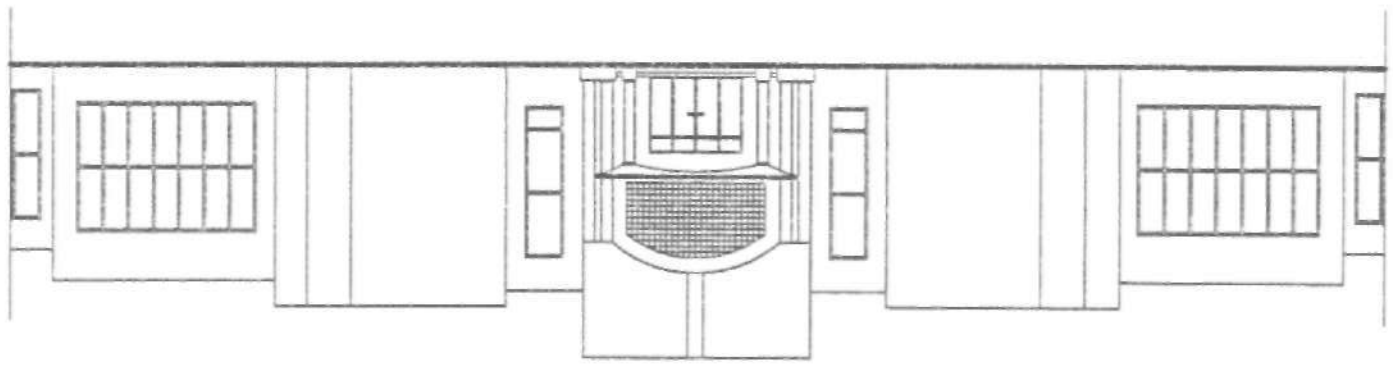


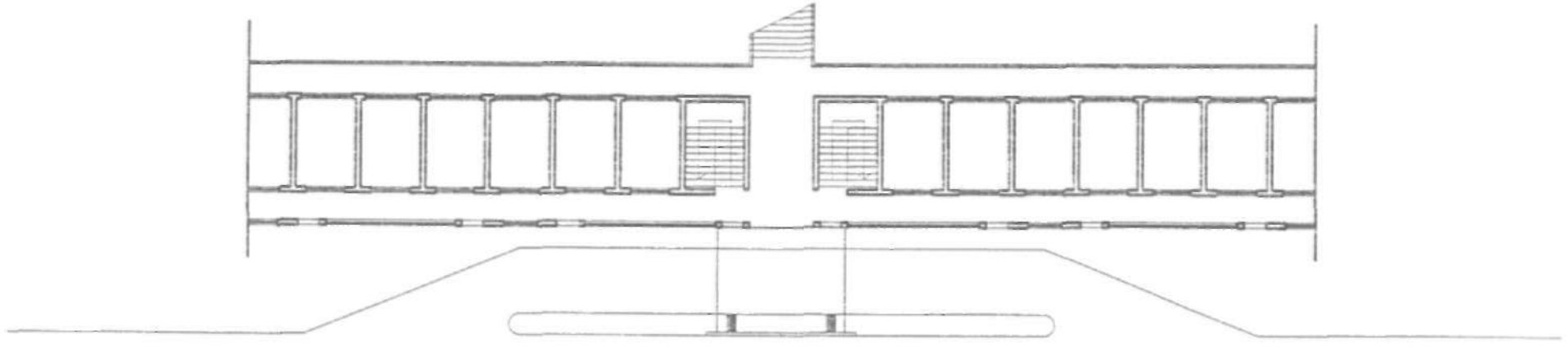


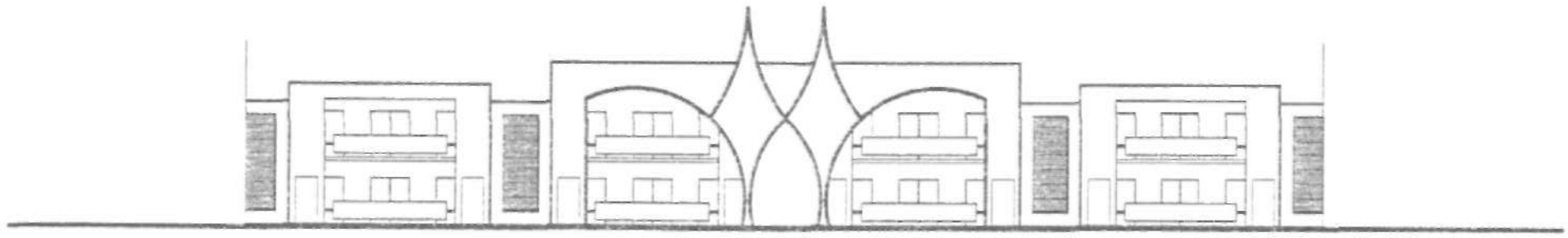


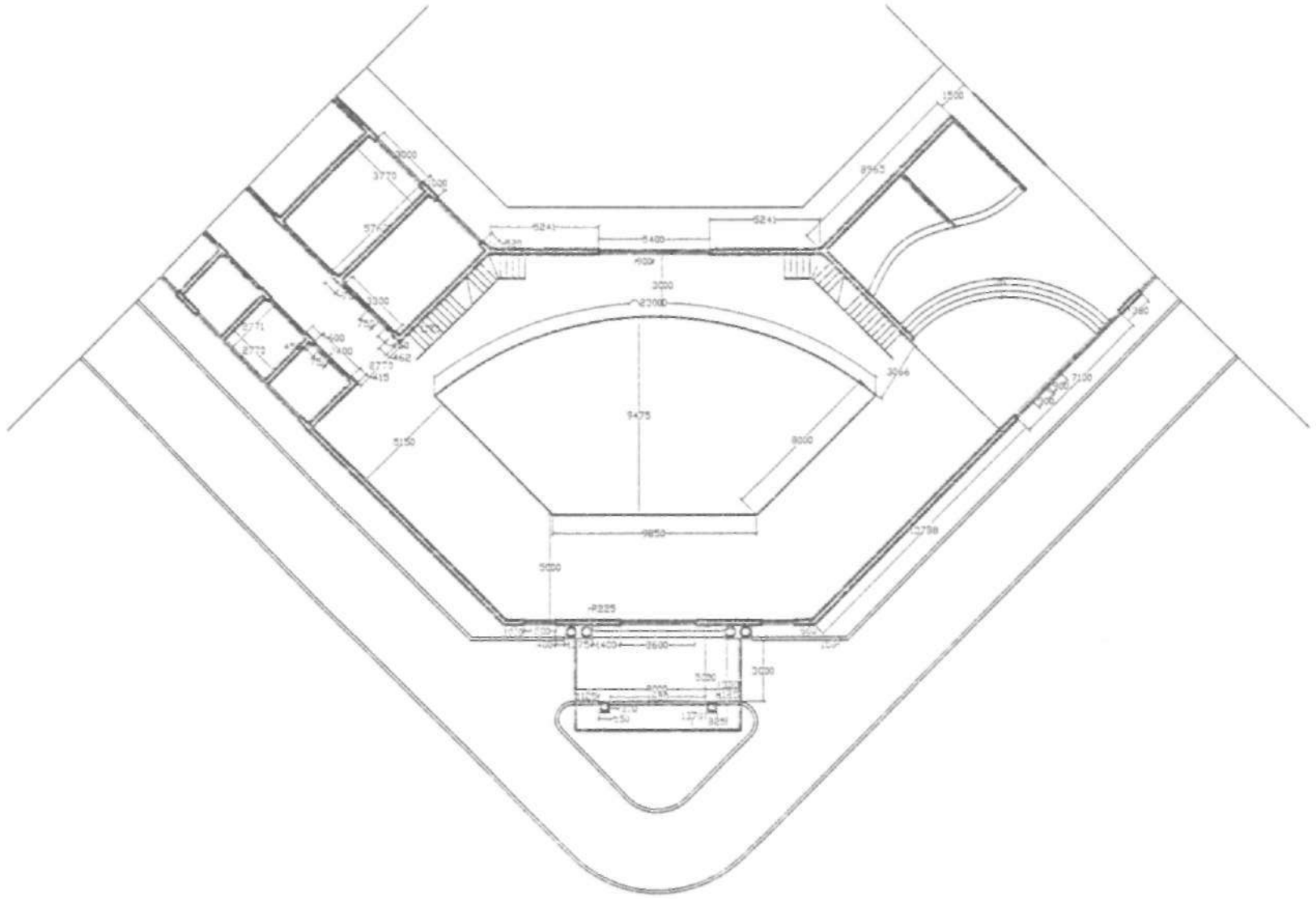


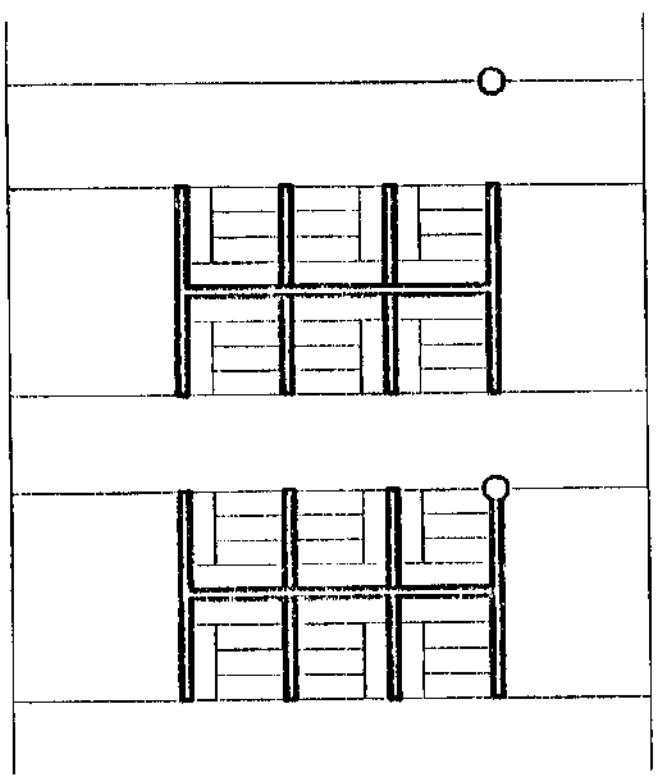


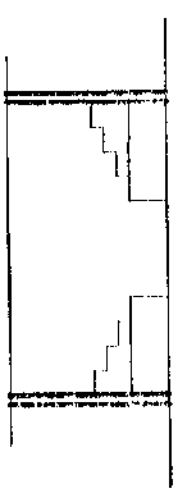


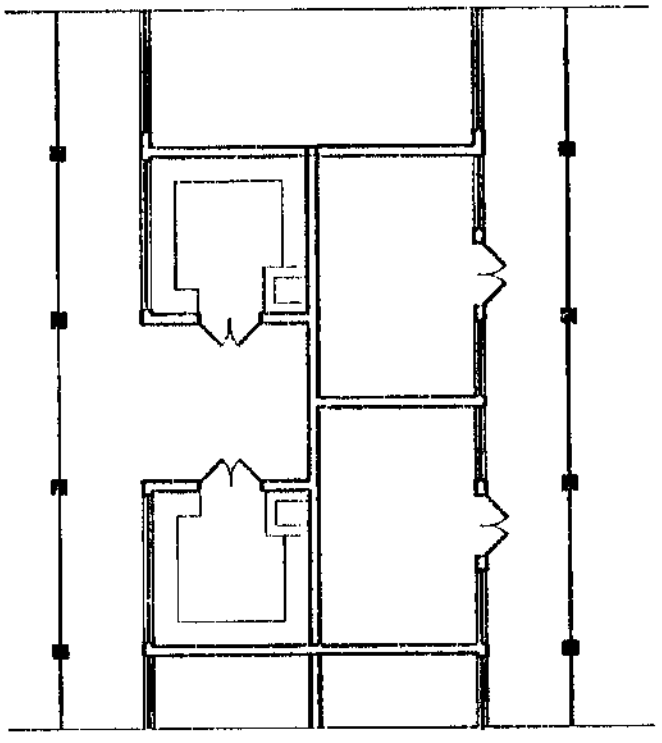




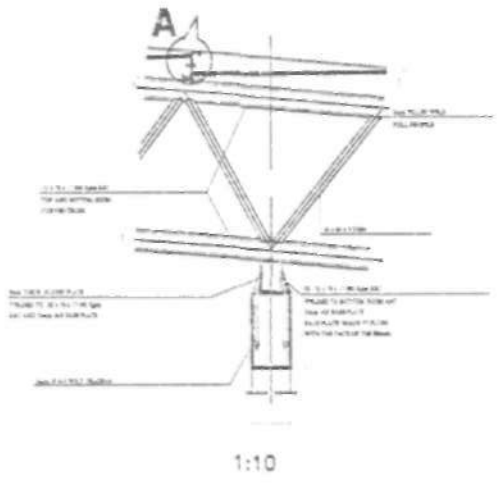

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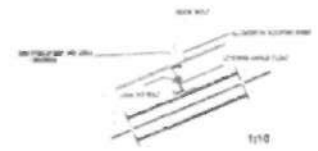


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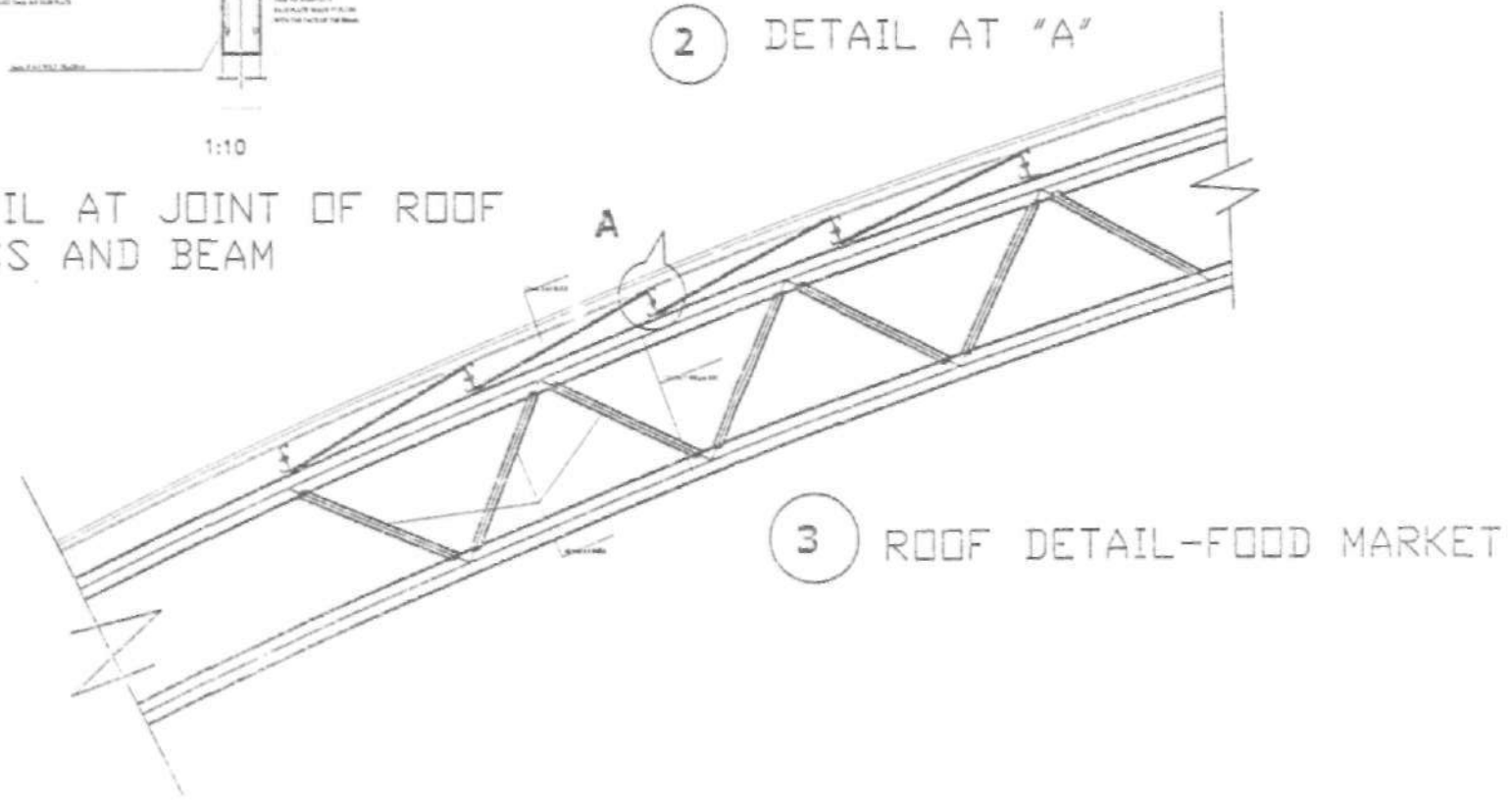
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