

## Types of Modern Planning of Housing Compounds and its Negative Impact on Climate "Case Study: Almadaneen quarter-Wad Medani-Sudan"

Maysa Osman Khider

B.Sc in architecture and urban planning, M.Sc in Architecture Engineering Science from Sudan University of  
Science and Technology, Sudan.

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**Abstract:** The study discusses the types of modern planning of the housing compounds and its negative impact on climate, through identify the housing compound and its role in building man, architecture and the community and the reduction of the present architectural planning of the housing compounds. Confirming this theoretical side of the study through selecting Almadaneen housing Quarter in Wad Medani town to study, and explain why this Quarter selection in between many housing Quarters.

Along with analyzing the architecture formulas which has lead to the reduction this planning style with its old features, the architecture formulas that have a negative impact on climate and local area , so as to come out with findings that identify the suitable architectural planning in wad Medani town and Almadaneen quarter in particularly and recommendations which will conserve the shape of the urban planning of Madaneen Housing Quarter through times.

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### I. Introduction

Modern architecture is based on unguided destructive copying of buildings in different areas without caring about climate and the surrounding environment, Hence we find the same building in Britain in Sudan or Egypt .. etc, In spite of different social needs of people, climate and environment . Through ages so many architects has made studies and cultural lectures to limit these problems, whereas the majority created another justification under the title ( domination of the western architectural style against the local one, while others tried to evoke argument about the architectural form in relation to architecture interior design(architectural plan content) , others care about revaluation ugly architectural forms, economic mentality which has contributed in making a big effect in environment and a great damage in climate that was not Observed in economic feasibility study. But in this study we can visualize these negatives , limit the domination of political and economic demands on architecture and basically adopt the social needs in architectural design.

#### A- Target of research

- 1- knowing architectural planning criteria of Wad Medani town.
- 2- limiting of unguided destructive copying of architectural buildings.

#### B - The research needs

To develop traditional architecture in Wad Medani

#### C- The research problem

Lack of available resources

#### D- The expected results

Knowing the architectural planning form that match Wad Medani town and Almadaneen quarter in especially ,to help preserve and develop it.

### II. The Research Method

The researcher has adopted the descriptive and analytical method for this research paper :

Through identify the housing compounds and its role in building man, architecture and community and defining the reduction forms of present architectural planning of the housing compounds with it's bad infect on climate and community. Confirming this theoretical side of the study through selecting Almadaneen housing Quarter in Wad Medani town to study, and explain why this Quarter selection in between many housing Quarters.

Along with analyzing the architecture formulas which has lead to the reduction of this planning style with its old features, the architecture formulas that have a negative impact on climate and local area , so as to come out with findings that identify the suitable architectural planning in wad Medani town and Almadaneen



sunlight , dust in the air and works to provide the largest amount of shadows on the streets and buildings and providing cold air,as next photos shown



Photo(2) Shadowed Streets in Almadneen Quarter  
Source :add by author



Photo(3) Closed-end streets in Almadneen Quarter  
Source :add by author



Photo(4) Cross streets in Almadneen Quarter  
Source :add by author



Photo(5) Shape of Intersection of streets in Almadneen Quarter  
Source :add by author

### **B-Design features and building materials**

The buildings features in Almadneen Quarter does not reflect the modern architecture formulas traditionally or contemporary , it's only insure the reduction of architectural forms .Thus, the function of Almadneen organic plan is reduced because its architectural formula that doesn't reflect the organic style and Sudanese heritage on buildings, As shown in follows photos



Photo(6) Shows reduction of buildings in Almadneen Quarter  
Source :add by author



Photo(7) Shows Shows lack of interest about coordinating buildings elevations in Almadneen Quarter  
Source :add by author



Photo(8) Shows walls falling down in Almadneen quarter buildings ,because absence of using modern technology in it.  
Source :add by author



Photo(9) Shows random usage of building materials  
Source :add by author

### **C- The shape of window and building height**

Almadneen area is classified as residential Quarter of third class, consist of

a- low density- two floors height buildings

b- Unique windows styles with square and rectangular shapes making environmental balance in buildings interior spaces.



Photo(10) Shows old traditional windows style in Almadneen quarter buildings ,and it has rectangular shape with wooden frame.  
Source :add by author



Photo(11)Shows rectangular windows model in Almadeneen quarter buildings  
Source :add by author



Photo(12) Shows maxim heights of buildings in Almadeneen quarter  
Source :add by author

#### **IV. Findings**

- 1- It is important to study climate and environment between areas ,regions, countries before start architectural planning, because it's create a difference between architectural planning shapes.
- 2- It is necessary to based on social demands in making planning and architectural design.
- 3- It is import to decorate building elevations through architectural different art styles that express the Sudanese traditional heritage in order to identity Sudanese architecture.
- 4-We must care about third class Housing Quarters, its protection and development.

#### **V. Recommendations**

- 1- Provide cultural courses in architecture about
  - a- different art styles that express the Sudanese traditional heritage in order to identify Sudanese architecture, and it's features through times.
  - b- Almadeneen Quarter planning and how to conserve this old housing quarter through times.
- 2- The legislative bodies are recommended to make laws and regulations to conserve the housing quarters in Wad Medani town and it's development

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