



Sudan University of science and technology
College of architecture and urban planning
Faculty of architecture
5th year bachelors



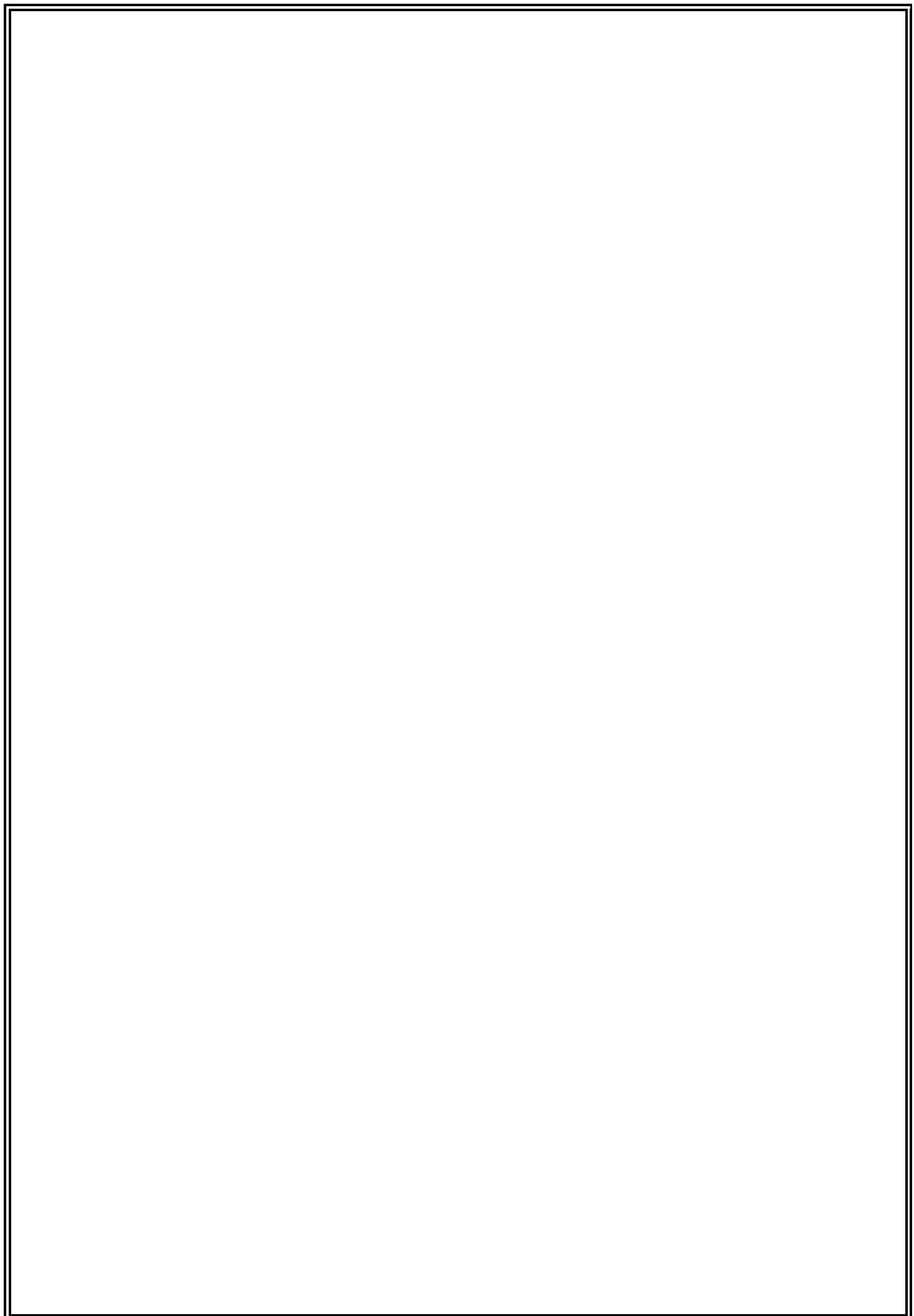
A report submitted in partial fulfillment of the requirements for the degree of
bachelors

Report titled: **cultural center**

By: Ahmed Hashim Suliman Ahmed

Supervised by: T. najwa almufti

September 2015



Abstract

This project .cultural center is a a public facility that aims towards creating a social interactive environment promoting culture in the form of literature and art .

Its goal is introducing the public to the art ..and providing a chance for people of common interests to meet and interact ..

The biggest challenge facing this project was enviourmental it was difficult creating sustainable treatments for the heat issues in the open and semi open spaces . "n sudan climate the first concern of any architect should be heat treatment " .words to live by. I have let the comfort of the user guied me through all stages of the design in attempting to make what the project intended to be . not just a building but social interactive environment .

هذا المشروع مركز ثقافي هو مؤسسة عامة والي درجة ما بيئية اجتماعية تفاعلية تهدف لنشر الثقافة في صورة الفن والادب .

الغرض من المشروع هو تعريف العامة بالفنون والاداب وخلق فرصة لالناس الذين يتشاركون هذه الاهتمامات في اللقاء والتعارف والتفاعل سويا .

اكبر التحديات التي واجهت المشروع هي بيئية .كان من الصعب خلق حلول مستدامة لمشكلة الحرارة في الفراغات المفتوحة وشبه المفتوحة " في مناخ السودان يجب ان يكون الهم الأول لأي معماري هو معالجة مشكلة الحرارة ".كلمات مهمة .

راحة المستخدم هي ما يحكمني ويقودني خلال مراحل التصميم في محاولة خلق المشروع كما يجب ان يكون ليس مجرد مبني بل بيئية اجتماعية تفاعلية.

For my parents ...

Acknowledgments

First and foremost All thanks and praise to Allah god almighty for taking me this far

.....

After god

I would like to thank all the teachers and staff of the architecture department of
Sudan university of science and technology ...

I would also like to express my very great appreciation to my project supervisor -T
Najwa Almufti- for her valuable and constructive suggestions during the conception
and development of this project. Her willingness to give her time so generously has
been very much appreciated

Table of contents

| Title | Page no. |
|--|----------|
| Chapter one | |
| introduction | |
| (1-1) The concept and meaning of culture | |
| (1-2) project definition..... | |
| (1-3) project goals | |
| (1-4) project challenges..... | |
| (1-5) project aspects..... | |
| (1-6) project importance and need..... | |
| Chapter two | |
| Similar projects | |
| (2-1) The Eemhuis..... | |
| (2-1-1) Project philosophy and design | |
| (2-1-2) Project plans :..... | |
| (2-1-3) Project advantages and disadvantages..... | |
| (2-2) SANAA's 'Cloud Boxes' | |
| (2-2-1)Project philosophy and design | |
| (2-2-2)Project plans :..... | |
| (2-2-3)Project advantages and disadvantages | |
| Chapter three | |
| (3-1)Project components | |
| (3-1-1)Functional components..... | |
| (a) Main Functional component..... | |
| (a-1)Main Functional component (cultural)..... | |
| (a-2)Main Functional component (educational)..... | |
| (a-3)Main Functional component (social)..... | |

- (b) Sup functional component
- (3-1-2) Human component
- (3-1-3) Spatial component
- (a) Main special component.....
- (a-1) Main special component (cultural).....
- (a-2) Main special component (educational).....
- (a-3) Main spatial component (social).....
- (b) Sup spatial component.....

(3-2) bubble diagrams

- (3-2-1) General bubble diagram.....
- (a) Main bubble diagram.....
- (b) Sup bubble diagram

(3-3) Space study

(3-3-1)Main spaces.....

- Library.....
- Galleries.....
- Studios
- Theatre
- Multi hall.....

(3-3-2) Sup spaces

- Restaurant.....
- Bathrooms.....
- Administration.....

Circulation

Space chart.....

(3-4) site

- Sites comparison
- Site location
- Site study.....

| |
|--------------------------------|
| Climate data..... |
| Noise solution..... |
| Ventilation solution..... |
| Sun ray and heat solution..... |
| Design guidelines..... |
| (3-4) Zoning..... |

Chapter four

| |
|-------------------------------------|
| (4-1)Design philosophy |
|-------------------------------------|

(4-2)Preliminary design

| |
|------------------------|
| Ground floor plan..... |
| floor plan..... |
| elevation..... |
| Design philosophy..... |

(4-3)Evolved design

| |
|------------------------|
| Ground floor plan..... |
| Floor plans |
| Sections..... |
| Elevations..... |
| Design philosophy..... |

Chapter five

| |
|-------------------------------------|
| (5-1)Structural system |
|-------------------------------------|

| |
|------------------------------------|
| Treatments (finishes)..... |
|------------------------------------|

(5-3) service

| |
|---|
| (5-3-1)Water supply..... |
| (5-3-2)Drain and sewage..... |
| (5-3-3)Electricity |
| (5-3-4)Air conditioning and fire system |
| Air conditioning..... |
| fire system..... |

