REMODELING OF THE BAPTIST CHILDREN'S ORPHANAGE.

(TROTOR, IN SOUTHERN GHANA)

by

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of

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CERTIFICATION

I hereby declare that, this submission is my own work towards the M.Arch. and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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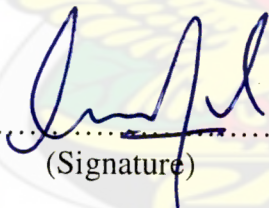
Dr. Kootin- Sanwu   ....   3rd Oct, 2009
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DEDICATION

This document is dedicated to my mother Miss Felicia Oforiwa Opare
and my sweet sisters Naa Adjeley Boye and Yvette Françoise Poh-lemi
who have been sources of inspiration to me.

ACKNOWLEDGEMENT

I am most grateful to all of those who contributed in diverse ways in the realization of this thesis. My out most thanks goes to the most high God who gave me life and health throughout the period of my thesis .I also thank all of my lectures especially Dr kootin-Sanwu whose time was all mine .
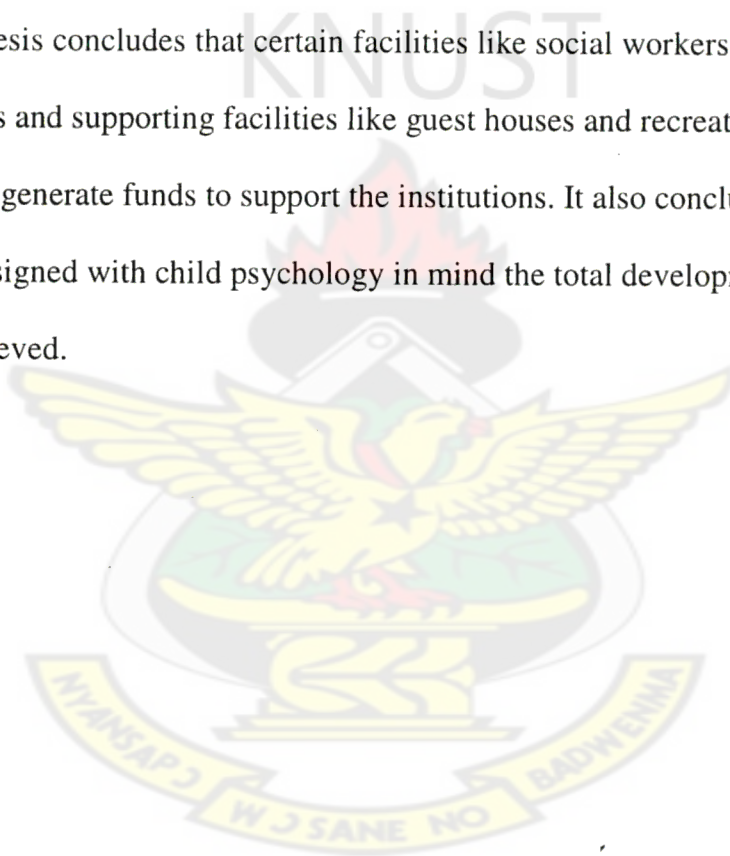
ABSTRACT

In time past orphanages were not recognized in Ghana. This was due to the fact that there were strong extended family ties and relatives took care of their orphans (Department of social welfare of Ghana, 2005). In present times a number of factors have lead to the ineffectiveness of the role of the extended families. Mortality during the past times was low since it was usually as a result of female mortality during birth or as a result of health problems beyond their medication. The number of children who lost their parents were not many and could be catered for by their extended family members. With the present trend of life style, especially with the emergence of the information and communication technology, means of transportation, the upsurge of HIV/AIDS and, mobility or mortality rate among child bearing women more lives are lost cumulatively over a very few years as compared to the various world war eras in Ghana.

These are some of the reasons more orphans are getting into the system than ever. If this situation is not check by creating well organized institutions to complement the broken down traditional systems and present life style, most of these children will become burden to society. This thesis seeks to investigate by data collection and analysis, factors which impact on the establishment of orphanages in Ghana and the fundamentals of the scientific principle for establishing an orphanage under modern prevailing conditions. It looks at the town and country planning principle for citing orphanages, most progressive spatial planning conditions for a typical orphanage in order to determine the nomenclature or type of orphanages and also to determine the specifics of the climate requirement on the orphanages. The whole study was done with the use of qualitative and humanistic approach toward orphanages, 'phenomenology' (Jackson and Smith 1984). It was found out that

though there are specific regulations governing the minimum spatial requirement for each orphan at different ages it was inadequate and was not adhered to by most of the orphanages visited.

There was no provision for sociologist, psychologist, and social workers with requisite skills. There was in most of the cases no intended design to create a total self sustaining environment for the child's development. The government only subsidies a few orphanages in terms of architecture and infrastructure and the rest are by non-governmental organizations. The thesis concludes that certain facilities like social workers offices, vocational institutions and supporting facilities like guest houses and recreational facilities should be attached to generate funds to support the institutions. It also concluded that if the facility is not well designed with child psychology in mind the total development of the child may not be achieved.
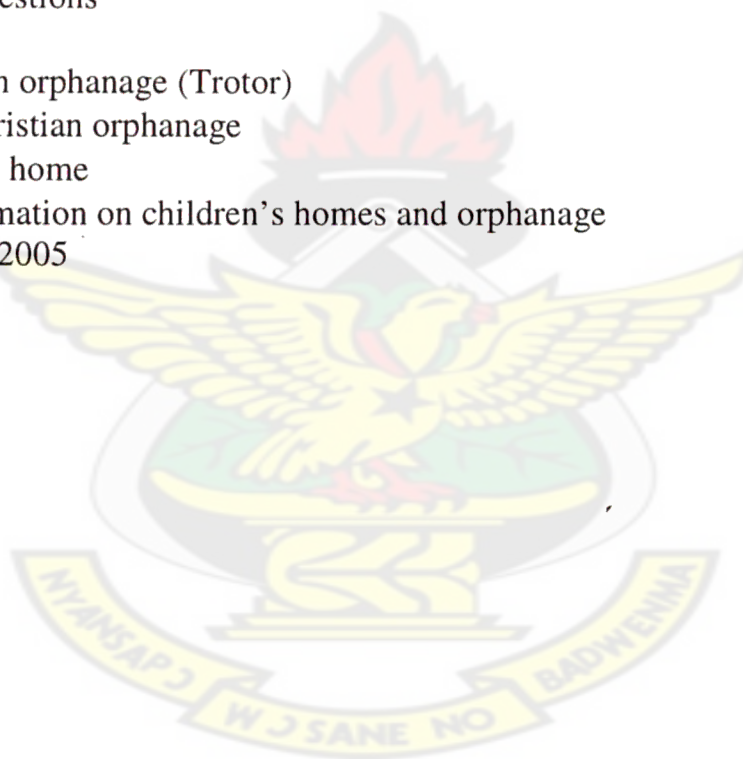
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CHAPTER ONE

INTRODUCTION

1.1 Background

Orphans in time past and present were kept in homes called orphanages (Legend and Legacies, 2007) and in Ghana the orphanages play an important role because they have helped to curb socioeconomic problems. Unfortunately, intended measures are not put in place for most of these orphanages. This is basically because of a number of factors that will be discussed in the chapter two. The design of these institutions does not satisfy their basic objectives. Most of these orphanages are close to the Greater Accra-eastern region border precluding the rest of the areas where majority of these orphans are and need help (Department of Social Welfare of Ghana, 2005).

1.1.1 Brief history of orphanages

According to the guideline on orphanages in Ghana, a handbook written by the Social Welfare Department, orphanages were not known in Ghana until the arrival of the missionaries. The missionaries thought it wise to adopt the category of orphans which cultural inhibition forbade from being raised in the traditional families. With the urbanization and modernization of the country many new communities were built. In the new towns Strong family ties were automatically disintegrated as á result of resettlement and most men left their wives and families in search of jobs and contracted casual relationships with other women. In Tema where ships came with pleasure seeking

seamen of many nationalities, many vices were introduced from other ports. Many children were born out of such casual relationships.

The absence of care for such orphans, abandoned and deprived children further underpinned the need for orphanages. The first officially recognized orphanage was started by a Nongovernmental Organization (NGO) called Children Society based at Kaneshie a suburb of Accra in Ghana in 1953. It was then moved to the present day Osu children's home near Labone junction in Accra. Since then many orphanages both private and government owned have sprang up in various regions of Ghana (Department of social welfare, 2005). There were other effective alternatives to orphanages; these included the extended family house, the chief's palace and the society. It may not have been an officially organized institution, but the culture and society created their own way of protecting its citizens and orphans (Nyarko, 2007). This was a more effective way but will fail in this present time because of the change in life style such as the nuclear family system, rural urban migration, increase in population and technology.

1.1.2 Factors responsible for the need of orphanages in Ghana.

According to Fact Sheet No.III, September, 2005, Population of Ghana: Demographic and Socio-Economic Indicators by District, Ghana has a population of 18,912,079 and projected population for 2010 will be 23,458,808.

Table1.1 Demographic Indicator

2000 popu.	% Female	% pop. Under 15 yrs.	% pop. aged 65 & above	% Urban pop.	Total rate
18,912,079	505	41.3	5.3	43.8	4.4

% Depend-Burden	Average age of women (marriage)	Average age of men	HIV/AIDS prevalent rate	Labour force participation 15 yrs. & above		% of Economic active pop.	
				Male	Female	Male	Female
87.1	19.6 yrs.	25 yrs.	3.6	76.7	72.7	50	50

From the table above the percentage population youthful age structure has a high potential for rapid growth as well as a high dependency burden and with an in-ordinate population growth rate 2.7%, a GDP growth rate of more than 8% is needed to reduce poverty and improve the quality of life of this population. The recent free maternity services extended to pregnant women is likely to increase the fertility ratio in the country as against the median age for marriage for women 19.6 yrs and men at 25 years. This will give rise to an increase in population increasing the poverty level and therefore dependency burden. Dependency ratio according to the Ghana Demographic and socio-economic indicator stands at 87.1% (Statistical Survey Department, 2005) . This reinforces the fact that the percentage population youthful age structure has a high potential for rapid growth and a high dependency burden. This is a clear indication of the fact that orphans from poor families are likely to suffer the most. The percentage of HIV/AIDS prevalence continues to decline due to health intervention and health education and now stands at 1.9%. The victims' who were infected are likely to die leaving young children who become orphans.

At the end of 2004, the UNAID estimated that there would be 25.4 million HIV patients in Sub-Saharan Africa. These facts are indications of the increase of orphan population in recent times.

The Ghanaian family structure is undergoing changes as the youths migrate from the rural areas to urban centers. The Urban population has risen to 43.8% as against 10% in the early 60^s. The Urban population keeps growing, giving rise to poor housing, poor sanitation, morbidity and mortality rate among all section of the population especially among the youthful ages of 15yrs – 24yrs and high dependency burden (Statistical Survey Department, June 2004). With the present population growth rate of about 2.7% per annum, a GDP growth rate of about 8% is needed to reduce poverty and improve the quality of life of the population. With an inordinate high population growth and increase in road accidents, the need for facilities for disaster victims becomes apparent; these should include facilities for orphans.

The present available orphanages are few, fragmented and prove to be inaccessible by victims of loss of parentage and other disaster. Population age-structure and the socio-economic characteristics will be important considerations in the provision of facilities for orphans.

1.1.3 National policy

The Republic of Ghana has no such policies governing orphanages. The only regulatory body is the Social Welfare Department of Ghana. They have a set of regulations that serves as a guide line for orphanage (Adongo, 2007) .This regulation has been listed in appendix 'A' of this thesis. The absence of a policy has contributed to the

nongovernmental organization putting up facilities which in no way contributes to the development of the orphans.

1.1.4 Finances from government for orphanage development.

The government Fund only 8% of the total of over 50 orphanages. This is done through the Social Welfare Department. The others orphanages are funded by non-governmental organizations(Adongo, 2007). Other facilities are now introduced to serve as money generating facilities to support the orphanages when funds are not available and sufficient from the government and non-government organization. Some of which are guest houses, farms, schools, etc. (Nyarko, 2007)

1.2 Aims and Objectives Of Study

The aim of this study is to describe the ideal kind of orphanage situation or design that will suite the culture, socioeconomic and psychological situation of the orphans in the country presently and in the future.

The objectives of this study are to:

1. determine the kind of change factors (Socio-economic etc.) that influence the development of orphanages.

2. find out factors militating to the need of orphanages in Ghana.

3. come out with the best way of creating a self sustaining facility that can meet the UN children's right to education and human right.

4. State the specific spaces that will develop the orphan according to the developmental theory by Erick Erickson (1965)

1.3 Thesis Question

The study wishes to answer the following questions:

1. What role do orphanages play in the socioeconomic situation of the country?

2. How has these orphanages contributed to the development of orphans?

3. How does the spatial requirements and specification from the Social Welfare Department satisfy the basics for the child's development?

4. To what extent are the designs of these orphanages satisfying the security and comfort of orphans in this present age of child trafficking and labour?

1.4 Scope

This work attempts to investigate the effect of architectural design on children living in orphanages in southern Ghana. It will be addressing the spatial requirements, housing systems, ventilation types, color schemes, shapes and forms used and the relation between their natural environs and the design of such institutions. It also investigates the development of orphanages in and out of Ghana with attempt to identifying positive features that will enhance orphanages in term of function, culture, and structure.

1.5 Significance of Study

The study has a potential of contributing to the body of knowledge on orphanage design, national policies guiding the siting of these orphanages, specific spatial requirements and the appropriate regulatory body under which orphanages should be placed. Furthermore it will help identify the factors that contribute to the increasing number of orphans,

improper orphanage design and socioeconomic problems which can be controlled with the use of a properly designed orphanage. The findings could be used by architects, designers and policy makers as the basis for design and policy making in the country. It could also be used as basis for further research in this area of study.

1.6 Conclusion

This chapter introduced the study, discursions, the problem, purpose and objectives of the study. The researcher formulated the thesis questions to be answered and defined the scope.

CHAPTER TWO

LITERATURE REVIEW

2.1 Preamble

This chapter is the literature review of the state of orphanages in Ghana, establishment and development of the spatial planning of the fundamental types of orphanages in Ghana, and the child developmental theory among others. The Purpose of this literature research is to:

Establish contextual frame of references for further empirical research.

Enable a clear understanding and appreciation of the subject under study.

Know the extent of research that have been made already and documented.

Establish some developmental scenarios for future deductions and applications.

Published and unpublished literature on the topic was reviewed. These involved the examination of written materials such as books journals, periodicals etc. A lot of information was also gathered from various internet sites associated with orphanages.

2.2 Break down of the extended family

Due to the breakdown of the extended family structure, the system cannot fill the gap of the absence of other family members. Sarbah (2004) writes that a Fanti family consists of all persons linearly descended through females from a common ancestor. There was what T.O Elias (2006) described as collective responsibility on the part of every member (Adjei, 2006).

The breakdown of the extended family system is usually as the result of rural urban migration (Caldwell, 1967), rapid economic advancement (Adjei, 2006) and the adoption of foreign cultures. This has further implications since most of the children whose parents are dead do not have proper care in the best scenarios, and may turn to crime in order to survive (Adjei, 2006). The remedy used now is to get them into these institutions where such care and supervision could be obtained.

2.3 Family strengthening

According to Felix Brou (2007) due to the high number of death due to HIV/AIDS and the civil war in Ivory Coast which is just a neighboring country to the western part of Ghana, 940,000 children under the age of 17 years have lost both parents (UNICEF 2004). To help these orphans 'Save Our Souls' (SOS) International which is a nongovernmental organization has decided to strengthen the extended families of these orphans financially and supervise them. They have reports with evidence of the several increases in profit by 50% to 63% in April 2006 for the various families that were helped and intend to expand the programme by;

1. Encouraging the families to be self sufficient on long term basis.
2. Develop and consolidate the capacity of local nongovernmental organizations and associations to ensure the well-being of the children who are part of the programme.
3. Create families committees in each district led by the actual people who are taking part in the programme.

The family strengthening programme could be extended to Ghana to help minimize the pressure on the orphanages in the country.

There are a few problems with this programme which can be rectified by simply institutionalizing them. The first problem is that most of the elderly family members are within the ages of 58 years and 69 years. Considering the age of these elderly people and their health conditions it is obvious that they could die any time leaving the younger children. The younger extended family members, who could take up such responsibility, have the tendency of starting their own families and may not give the necessary care to their orphan relatives.

Though the family strengthening technique could be done on a small scale it would be better to have a well organized designed and built institution. Since Ghana also has a large number of orphans, 2018 registered with the Social Welfare Department (Department of Social Welfare, 2005), the family strengthening programme will be just appropriate for her especially on pilot base.

2.4 Child developmental theory

According to Erick Erickson (1965) developmental changes occur throughout a person's life. It can be viewed as a series of eight stages of psychosocial development. During these stages the individual develops through interacting and understanding of each other and of their knowledge and understanding of themselves as a member of the society.

The first three stages are more relevant to this study because they help the author think and come out with spaces that will enhance or encourage each developmental stage. It

also gave him the clear understanding of what kind of physical environment should be created to enhance the various stages in the child's life. These stages are:

1. Trust –versus- mistrust:

   The first stages occur from birth to 18 months of age, during which the child develops trust or mistrust. During this stage if a well designed room with the appropriate furniture and room colours are provided, it gives the child a sense of belonging to that space at that stage. This is because at that stage where the child is feed and feels comfortable it develops trust and therefore a sense of belonging to that environment.

2. Autonomy –verses-shame :

   This second stage occurs from ages 18 months to 3 years. The child develop independence and autonomy if exploration and freedom are encouraged, if not the child becomes timid or develop self doubt .with this knowledge it will be appropriate to create indoor and outdoor playing areas which will be within the visual scope of the supervisor .this will encourage less restriction and will enhance the child's confidence. The use of hedges or variation of levels as imaginary boundaries could be also encouraged to enhance the child's own ability to decide his or her limits with minimum supervision from supervisors.

3. Initiative- verses-guilt(age 3years- 6years):

   At this stage children experience conflict between independence of action and some negative result of action. With this in mind it will very appropriate to create orphanages with individual residential buildings.

2.5 Registration/Regulation

The Department of social welfare is the Government Statutory Agency, which has the mandate to regulate the operation of children's Homes and orphanages vide part VI, sub-part 1, sect. 105-114 of the Children's Act (1998). To fulfill this mandate, the Department has come out with rules and procedures. This can be found in Appendix "A" of this thesis.

It will be more appropriate for these orphanages to be regulated by the ministry of women and children's affairs which has a department of children's affairs, and operates basically by 5 acts and legislative instruments. These are;

1. Domestic violence act

2. Human trafficking act

3. The children's act

4. Early childhood care and development policy

5. National gender and children's policy. (Ministry of women and children's affairs, Ghana, 2007).

Most of the victims of the effects of all these circumstance, of accidents, human trafficking, HIV/AIDS etc. are children and women. To be more precise it is the children who are made orphans. That is why the change from Social Welfare Department to the Ministry of Women and Children's Affairs is necessary.

2.6 Minimum standards for orphanages and residential facilities

According to the hand book for the guidelines for orphanages in Ghana by the social welfare department ,all developers are required to get approval and license from the authority before the establishment of such facilities. Assessment of these facility falls into The following category:

1. Health provision; this should includes the provision of a well designed structure fore first aid in case of any health issues. The rooms in individual buildings should be spacious and well oriented so as to minimize the spread of contagious disease among children as a result of natural ventilation.

2. Nutrition; so far as this study is concerned the provision of hygienic spaces for dining and cooking should be considered.

3. Education; this includes a school for at least the preschool age, the basic and JSS schools could be included if the funds are available.

4. Accommodation; this includes the residential facility for the children.

    The standard can be referred to from appendix 'A' of this thesis.

The minimum standards should have been more detailed so far as the architecture of the facility is concerned. The minimum areas (m^2) could have been more specific with relation to standards from the architect's data or using the anthropometrics of the average Ghanaian child. Some of the specifics derived could have been fine tuned and policies made out of them. This could be used to check the spatial requirement in any case and help in the proper standardization of such facilities.

2.7 Guidelines as stipulated by the Children's Act, 1998 (ACT 560)

The Children Act, 1998 give Guidelines on the function of orphanages in the country. These guidelines cover the location of facilities with any orphanage, logistics, staff etc. (Department of social welfare of Ghana, introduction and origin in Ghana a guide line for orphanages). In the absence of a policy and inadequate regulation the guidelines is the only check for orphanages. It is not adequate but has been of immense benefit to these orphanages.

2.8 Conceptual solutions for orphanages

According to Julie Morries (2006) for more than 150 years societies have been attempting many solutions for these bereaving children. These have been the different forms of 'orphanage' solutions: Orphan Trains, Children's Village, Foster Homes, Church Orphanages, State Orphanages, Foundling Hospitals, Group Home and Asylums (Legend and legacies, 1999). From deduction each orphanage type was a solution during a particular revolution. All the same during some of the revolutions there was more than one type of orphanage. It could have either been the industrial revolution or French revolution or any other. The type of orphanage was just good to curb the situation at that time and was usually relevant to the western countries. In any case the closest to the Ghanaian setting and family system (extended family system) is the children's village. Other types of orphanages fostered abuse of human right and children's right to education. This could be equated to child labour and child trafficking in today's context. The concept of the children's village can be modified and adopted to fit the Ghanaian

setting since it has familiar characteristics with our slowly breaking down extended family system.

2.9 Osu Children's Home

Background

The orphanage was first established in kaneshei by a nongovernmental organization (NGO) in 1953.They moved into the present site at Osu now called Osu Childrens home.

Location

The Osu Children's home is located on the Labone junction near the Seventh Day Adventist school complex in the southern part of Accra. It is bounded by high-income residential areas such as osu in the area to the west and labone to the east. It is bounded immediately on the east by the labone S.D.A. school complex, on the south by the labone secondary school and the west by the ring road.

Fig.2.1 Perspective of the Osu Children's home taken from the main road.

Current conditions and infrastructure

General layout

The Osu children's home has two kinds of buildings. The court yard and the detach kind of buildings. When approaching the facility through the main entrance the first building on your right is the supervisor's residence. This position is not the best. The administration would have been the best to be sited there; it is rather situated deep into the facility. The administration should be the first point of call. To the immediate left of the entrance is the toddler house .This is the worse blander a designer could make for such a facility. With the present trend of child theft, trafficking and the closeness of the facility to the main road it would have been better to place such a facility deep in the design. This is because the position as at now poses threat to the security of the toddler.

Architecture

The roofs: Predominantly there are 4 types of roofs on the compound. Gable roofs, hip roofs, mono pitch and flat roofs over walkways. In any ideal case it will be better if the maximum of two kinds of roofs are used. This will give the facility a unique character.
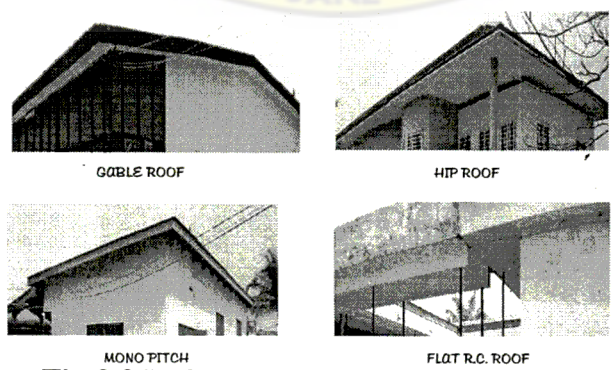
Fig.2.2 Deferent types of roofs

Windows and Doors: There are 3 different types of doors, the panel, and trap door and the flush door. The panel doors are mostly used at the external part of the building due to the fact that it is more durable, weather resistant and has beautiful pattern to exhibit itself. The flush doors are used indoors, since they are cheap and not weather resistant.
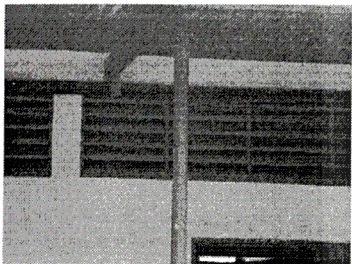
Glazed Window

Wooden Jalousie
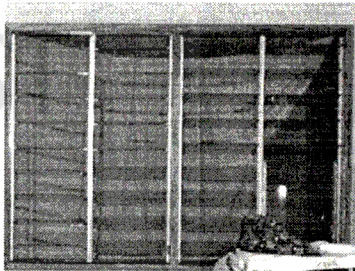
Louver Blades
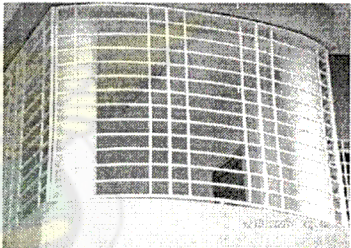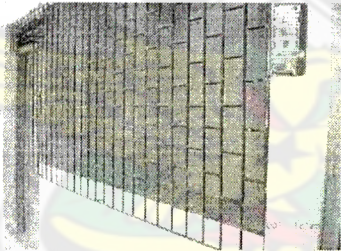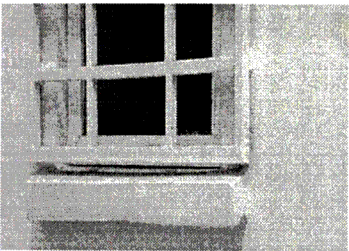
Deferent kinds of burglar proofing

Fig.2.3 Types of windows and burglar proof
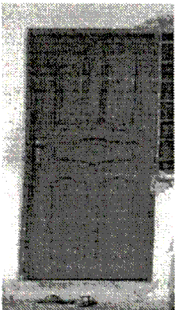
Panel door

Flush door
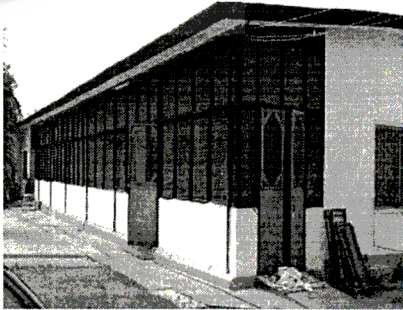
Trap door

Fig.2.4 Types of doors

Materials: The jalousie is made of wood whiles the glazed windows have wide pane of glasses used in some cases. The louver blades also made of glass and framed in aluminium. The jalousie placed in high levels to allow privacy and continuous air, cooling down the temperature and reducing humidity in the houses and the clinic.

The glazed windows allows for continuous vision into various spaces in the nursery. The louver blades allows for maximum air flow and vision through the

facility.

There is continuous chain of windows on the longitudinal sides. These windows are opposite walls creating direct cross ventilation.

In almost all cases external windows are protected with various kinds of burglar Proofing ,varying for mesh, to welded metal pieces. These burglar proofs are used as decorative elements on the windows to enhance the beauty of the entire building.

Engineering services

No institutions can operate successfully with out engineering services like water electricity and mechanical systems.

Waste Water

The use of polyvinyl chloride (P.V.C.) pipe is the material used for disposing off waste water from both the houses as well as the roofs. Most of the u-drains were made of reinforced concrete uncovered yet were very clean. In the case of the flat roofs spouts made from P.V.C is used for draining water.
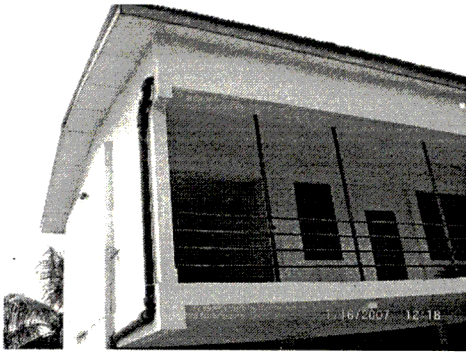
Fig.2.5 The use of pipes to Drain water from roof.

fig.2.6 Pipes were used as Spouts for draining water off flat
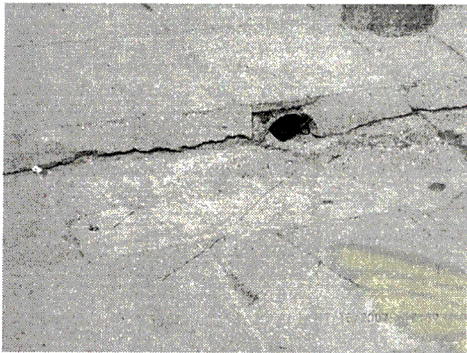
Fig.2.7 The use of under ground drains was used to drain surface water
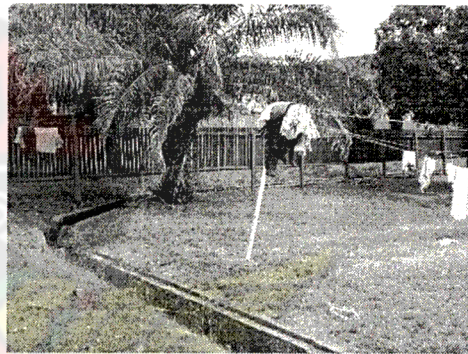
fig.2.8 Uncovered u-drain is used to drain waste water from various facilities
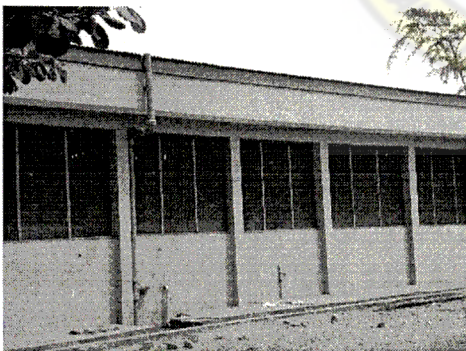
Fig.2.9 Pipes were used for sewage at the girl's house

Fig.2.10 This sewage tank was the designed as an architectural feature

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Sewage

Well incorporated sewage systems were found all over the compound. In the case of the pre-school, the septic tank is designed to blend with the pavement and could be used as a sitting surface. Most vent pipe made of P.V.C tends to soil the walls. This problem could have been solved by integration in the preliminary stages in design.

Fire Protection

The buildings are well served with fire protection gadget and equipment
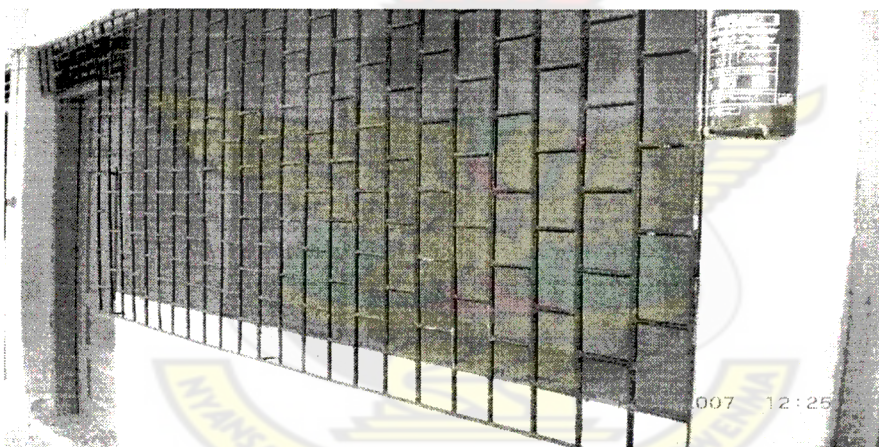
Fig.2.11 Fire extinguishers placed at vantage points at the administration block

Water

Due to intermittent water shortage, poly tanks have been provided in each facility to serve as water reservoir. This provision is essential to the fact that orphans do not move far in search of water. It relieves the supervisors from the issue of security. This is

because they don't need to accompany these orphans. This create a situation for less
restriction

Fig.2.12 Polytank reservoirs for water storage

Circulation

Horizontal circulation has been provided. The use of paved paths and

streets are well linked. There are adequate and well demarcated pavements and streets

so that one can easily identify the street and the pavement. The main kind of vertical

circulation is aided by only stair cases at the office and the new dormitory.

Fig.2.13 roads made of concrete pavement
block
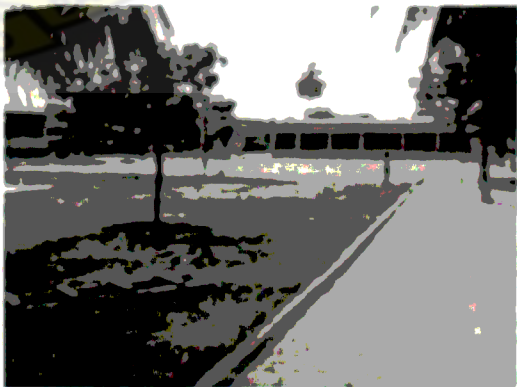
Fig.2.14 Path way covered
With rough Terrazzo

Structures

The predominant structure component was the post and beam structural

system with the rafter and purling system for the roofs. The columns were made of

reinforced concrete and circular metal columns and they are structural. The beams were

also made of reinforced concrete and timber. These are simple structures known to the

local craft men. This makes the construction cheap.

2.10 Light House Christian Orphanage

Back Ground

The light house Christian orphanage was started in the early 2005 by Rev.Mrs.Heward

Mills. These are to help the orphaned children in the church and its environs. Families

without children can adopt from the orphanage.

The facility has 40 children, including children from the social welfare department of

Ghana

Location

The light house Christian orphanage is locate at Jamaica a suburb of Aburi a town in the

eastern part of Ghana.

Current conditions and infrastructure

Spatial Arrangement
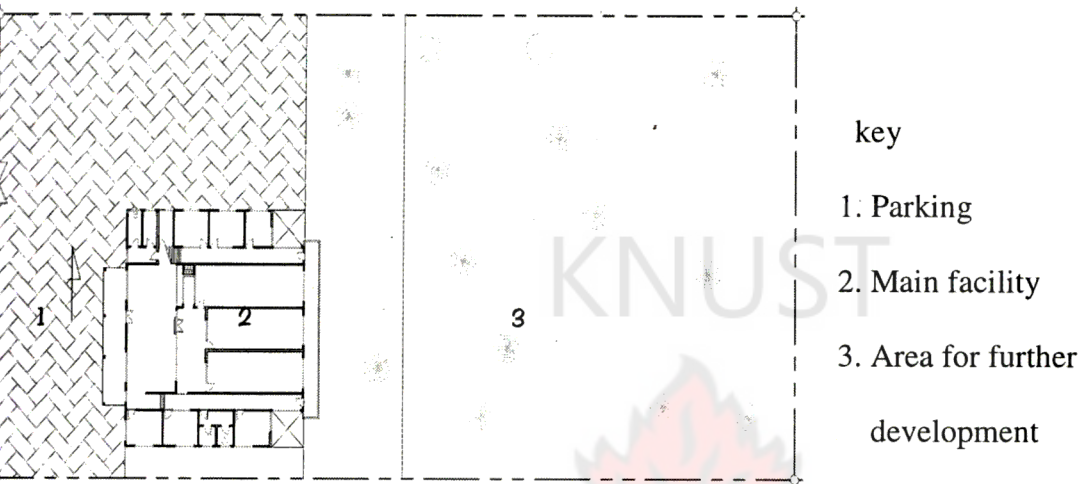
-General layout

Fig.2.15 general layout of light house Christian orphanage

key

1. Parking

2. Main facility

3. Area for further

development

All facilities are housed in one block with expansion of facility in mind. It contains one big lounge which connects to all other areas. To the right of the lounge on entering is the administration and further deep are two rooms and a sanitary for the caretakers .the boys ,girls and toddler's rooms are in a row just in front of the lounge. It would have been better to have had the supervisor's room in between them .this will help check sexual misconduct among the teenagers. That position would have made supervision easier. At the extreme left side of the lounge is the sanitary, the preschool and two other rooms. One is for the volunteers and the other is used as the toys room for the preschool. The kitchen, dining hall and play areas are in the sub-basement of the house.

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Architecture

The Roofs: The roof type used is gable roof and blends well with the environment. The roof cover is (300x300) mm concrete tiles. The roof tiles act as thermal insulation. This is due to the fact that the average atmospheric temperature in this region is 18^0 Celsius.

2.11 Save Our Soul (SOS) Village (Tema)

Back ground.

The first SOS children's village was founded by Hermann Gmeiner in 1949 in Austria. In this institution every child belongs to a family and grows with love and security.

Each child has a caring mother. The SOS mother builds a close relationship with every child entrusted to her and provides the security, love and stability that each child needs. As a child care professional, she lives together with the children. She guides their development and run her household independently. She recognises and respects each child's family background, culture root and religion.

Family ties grow naturally. Girls and boys of different ages live together as brothers and sisters, with natural brothers and sisters always staying within the same SOS family. These children and their SOS mother build emotional ties that last a life time.

The house is the family's home, with its own unique feeling, rhythm and routine .under its roof, children enjoy a real sense of security and belonging. Children grow and learn together, sharing responsibilities and all the joys and sorrows of daily life.

The SOS family is a part of the community. Families live together, forming a supportive village environment where children enjoy a happy childhood. The families share experiences and offer one another a helping hand. They also live as integrated and

contributing members of the local community through his or her family, village and community, each child learns to participate actively in the society.

Location

This facility is located in community 6 just opposite community 10 junction in Tema in the Greater Accra region of Ghana

Current conditions and infrastructure

Spatial Arrangement

General layout

EXISTING SITUATION of PATITION WALLS
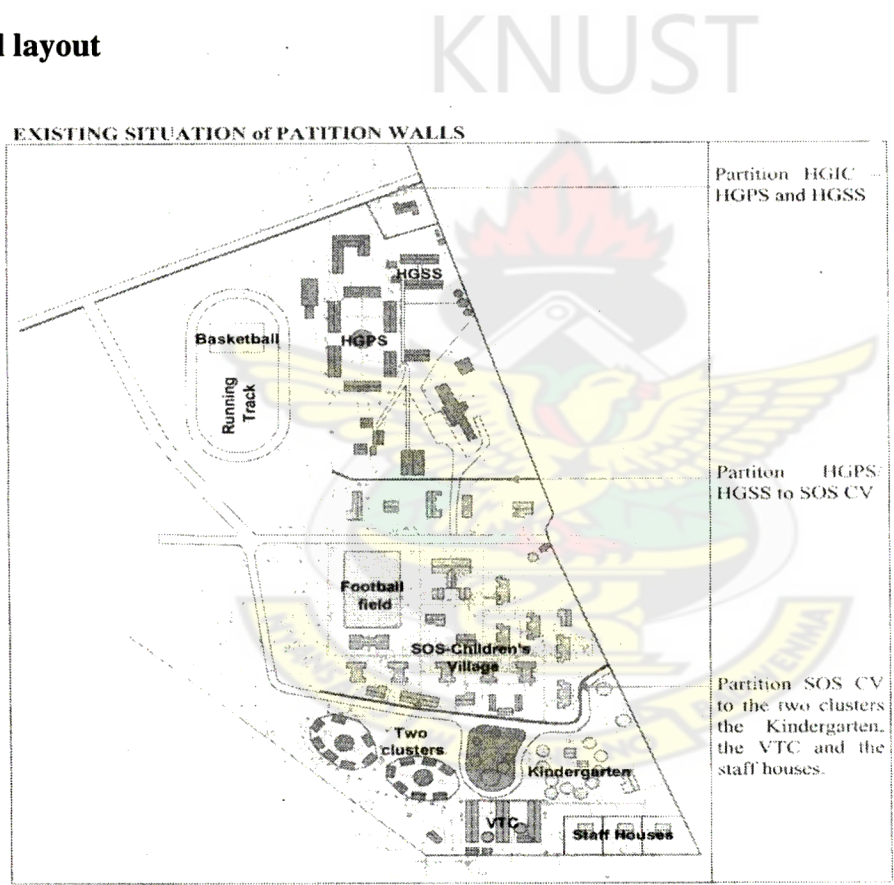
Fig.2.16 The general layout of SOS children's village.

This complex is clearly partitioned into the kindergarten, the children's village and the school.

The village is the orphanage. Approaching the entrance, to the left is the gate house which is with tight security. To the immediate right of the main gate when coming from the street is the father's (supervisor's) residence. This seems to be the first point of call. I do not agree to that. It should be the administration. That position would have been the best for the administration. The father's residence could have been at the present administration so that it could be close to the children's house. The position of the children's houses is the best. It is deeply sited on the immediate left of the main gate on entry. The facility has three house types; I-shape or linear shape, L-shape and H-shape. With the I-shape, spaces are arranged such that at every point in the living room, one can see all the other spaces. It allow for maximum lighting and free flow of air in all directions. The supervisor is located in such a position that makes supervision easy. The girl and toddlers are close and the boy's room is within eye range. I suggest that some kind of storage facility is provided since there is none.

The L-shape fosters human interaction though some amount of artificial lighting is needed in the corridors.

The H-shape is one of the best building typology for the tropics. The shape allows for free flow of air, maximum natural lighting and very good spatial interaction.

2.12 Save Our Soul (SOS) Village –AQABA

Location

It is located in Al-Alameya district of aqaba in Jordan.

General description of facility of facility:

The facility is a home of a hundred orphaned children, cared for in nine children each by a dedication "mother" in an environment as close as possible to the natural family; a concept, simple, yet, intensely human.

The flat 20,000-m^2 site contains:

ι.   Typical family houses each having three bedroom s, 3 children each, mothers bedroom, two bathrooms, living –dining room, kitchen with store and a guest toilet.

ɔ.   One director's house having three bedroom, two bathrooms, living-dining room, kitchen with store and a guest toilet.

c.   One aunt's house having four bedrooms, two bathrooms, living-dining room, kitchen with store and guest toilet.   All houses have one main entrance and one service entrance

d.   Two staff houses each containing three bedrooms two bathroom, living –dining room, and kitchen with store.

e.   One guest quarters containing two bedrooms ,one bathroom ,living-dining room and kitchenette

f.   One administration building containing reception and waiting space two offices, a meeting room, toilet, kitchenette, clinic and store.

g.   One kindergarten containing four classrooms ,each two sharing toilets and toy store ,principals office ,two stores ,staff room, toilet (male ,female), and a small outdoor play space/theatre.

h.   Service facilities comprising a gate house, an electrical room, toilet facilities, several shops rent and two maintenance workshops.

Outdoor playground, water storage, adequate parking, landscape area, and possible future expansion for more family houses.

Evolution of design concept

Environmental, functional and social factors were considered. Economy was a primary factor as well. Local materials (granite boulders naturally available at no cost) were, considered, traditional ventilation technique was implemented and traditional architectural vocabulary was a source of inspiration (lintel and bright colours). There was also the introduction of solar for domestic water (heating spaces are not needed in Aqaba).

Construction Details.

    A. Description of material

1. Foundations

Cast in situ reinforced concrete strip footings.

2. Principal structural members

    Reinforced in situ concrete columns, beams and slabs.

3. Infill

Cavity concrete block walls, locally manufactured for external walls. Single layer block walls for interior partitions.

4. Rendering of facades or exterior finishing

Fair faced reinforced concrete base. Locally available random granite boulders with subtle coursing. Precast concrete lintel and sill for windows and doors and precast concrete coping.

5. Floors

Precast locally manufactured terrazzo tiles for all spaces except baths and toilet where glazed tiles were used. Externally precast concrete tiles were used.

6. Ceiling

2cm cement plaster and emulsion paint

7. Roofing

Thermal insulation, screed to falls and waterproofing sheets on reinforced concert slabs

8. Other elements.

Solid wood door and window frames main doors are also solid wood. Internal doors and flush wood doors. Steel is used for security grills and service area doors

2.13 Conclusion

The main areas of orphanages are:

1. The resident's rooms linked to bathrooms and lavatories

2. Dining rooms lounges and rooms for other social activities

The primary mission of planning orphanages is to promote improvement in the conditions of orphans within populated areas. Rational long-range planning for orphanages will involve first an assessment of the conditions of the existing orphanages and the identification of the population groups most affected by those problems orphanages services may then be developed, reorganised or strengthened in order to address these

identified facility problems. Schools are to be within the facilities so that children can walk or ride to avoid accidents. Riding and walking could be a good exercise for children. With advancement in science and technology orphanages are now been designed to promote health and education. The tendency now is that orphanages provide recreational facilities for children. The architecture should identify with the vernacular architecture of it's location in order to create a sense of identity with its setting.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Preamble

The information used in writing this thesis was obtained by the use of the following methodology:

1. literature search/Internet searches

2. Interview

3. Case studies

4. Observation

3.2 literature search/Internet searches

The literature search was conducted using the Kwame Nkrumah University Of Science and Technology (KNUST) library, the KNUST post graduate internet café, the department of Social Welfare, the ministry of women and children's affair and statistical survey department archive. It was done using text books, journals, news papers, fact sheets and hand books from 1953-2007 that reported quantitative and qualitative data (1) on the various orphanages in the country (2) the history of orphanages in the country (3) child developmental theory (4) statistical data for population sensor 2000 (5) the children's act 1998(560).Data was also retrieved from various internet sites and reviewed, those relevant and referenced were (1) www.laatid.triblog.org. (Accessed March, 2007)

(2) www.cdc.gov/healthyplaces/healthtopics/children.htm. (Accessed May, 2007)

(3)www.rootsweb.ancestry.com. (Accessed March, 2007)

(4) www.legend and legacies.com. (Accessed January, 2007) (5) www.iss.co.za. (accessed March, 2007)

A goggle search for" orphanages in Ghana" yielded 339,000 results. Only five of them were relevant to this study. Searches from the KNUST Department of architecture library for "research results", results of research, and results from research yielded no usable references. The remaining findings were identified by the use of other methodology.

3.2 Interviews

The purpose of the interviews was to get the views of authorities in this area and know the reasons for some decisions. Interviews as a methodology seem to be more effective than the use of written questionnaire. This is because the answers seem to probe other questions which give a deeper insight of the interviewees' experience (Kvale, 1996).

There are four types; (1) informal conversational interview, (2) general interview guide approach, (3) standardized open-ended interview and (4) closed, fixed-response interview. In the case of this study the general interview guide approach was used. Lots of interviews were conducted at the Osu Children's home in Accra, the SOS villages at Tema, the Light House Christian orphanage at Aburi and the Baptist Children's orphanage at Koforidua. This was conducted to know their policies, limitations or problems and also their suggestions. These questions were basically listed and asked verbally. It was done on a one to one base. The list of questions can be referred to from appendix 'B' of this thesis.

The following were the authorities and personnel interviewed;

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1. Adongo S.T., Deputy Director (CRP), Department of Social Welfare Ghana, 15 January 2007,

2. Millicent Nyarko, Assistant Supervisor, Osu Childrens Home, 16 January 2007

3. Dorcia, administrator SOS children's village, Tema, 27 January 2007

4. Rev. Victor Ofori-Amoah, proprietor, Baptist school complex and orphanage, suhum, 26 February 2007.

5. Rev. Adelaide Heward-Mills supervisor Light house Christian's orphanage, Aburi (Ghana) 10, March 2007.

The responses from theses interview have been reviewed in the previous chapter and the salient facts placed in the next chapter.

3.3 Case studies

The purpose of this case study is to identify both the positive and negative effect of the designs on the existing orphanages, resulting from environmental variables in the development of orphanages, with the objectives of reaching an environment that will respond to the emotional need of orphans, stimulates their senses, and optimisation of operational aspect and well being.

There are basically 3 types of case studies. According to Stakes (1995) these case studies are (1) Intrinsic case study, (2) Instrumental case study, (3) collective case study. With the collective case study a group of cases are studied. In this study the collective case study was used. A collection of five (5) orphanages from central, eastern, greater Accra regions of Ghana and one from Aqaba in Jordan was made. The data was collected by the use of interviews (one-on-one), guided observation and visual observation.

The aspect of the case study comprise of

1. Adequacy and quality of functional spaces

2. Ventilation of functional spaces in terms of promoting good health.

3. Housing units spaces in compliance with safety standards for users-mothers, orphans, teachers and others. The positive results of the case studies will be incorporated into the process of programming and designing of orphanages

4. The response to national problems of orphanages in the country will have been established.

The data collected from the various cases were reviewed and conclusions were made from the results which are stated in the chapter four.

3.4 Observation

There are basically two kinds of observation methodology, these are the participant and non participant methodology (Holly, et al, 2006). With the use of participant observation, the observer is actively involved for an extended period of time. It may require the observer living and working in the area.

With the non participant observation the observer is an eavesdropper. it is usually used in scientific research by psychologist.

For the sake of this thesis the participant observation methodology was used. Personal observations, visual survey and documentation of existing situation were conducted to have a firsthand experience of the situation pertaining in the country.

A note book and pen was always available for jotting down all interesting events and observations. In some cases the events were snapped using a digital camera. Interesting

features that were observed were also snapped and later reviewed. Any theory that was propounded by the author was immediately written down .the author asked the opinion of others in the community (orphanage) based on his observation to confirm his findings.

Various room sizes for the orphanages visited was taken and related to the number of people occupying them.

In the SOS children's village at Tema the average room size for 4 people was $16m^2$.

At the Baptist children's orphanage at Trotor (Koforidua) in the eastern region the average size for a room in the girls' dormitory was $13.5m^2$ for 8 girls. The average size for the boys was $30m^2$ for 10 boys.

At the light house Christian's orphanage the room size for the toddlers and babies was $29.5m^2$ for 18 toddlers. The girl's room size is also $29.5m^2$ for 10 people and the size of the boy's room is $32.35m^2$ for 12 for people as at now.

The average room sizes at Osu Children Home was $18.8m^2$ and it was for 4 people. Each of them occupied $4.7m^2$. This information was used to propose the average space for an individual orphan.

After staying with the orphans at the Baptist Children's home at Trotor, visiting SOS Orphans Village, Osu Children's Home and Light House Christian's Orphanage the following observations were made.

1. In the situation where homes were made with foster mothers, the children seem to be bold and confident. In such orphanages, the orphans are usually housed in one unit. The various rooms for boys, girls and toddlers as well as that for the mothers or supervisors are in the same building.

2. In most buildings where all rooms were housed in one building, there was some attempt to position the mothers or supervisors in a place to make supervision easy.

3. In other cases, where the dormitory systems were used, I observed that, the children seemed terrified whenever they were made to socialize with older ones from other dormitories.

4. The dormitory type did not seem to foster good family ties.

5. In each type there was an attempt to create a space for recreational purposes. These spaces were very effective even though some were relatively small.

6. There was also an attempt to inculcate supporting facilities like pre-schools and primary schools which was very effective because people from the community attended them, this enhance social relations with the community.

7. The children ended up making suitable uses for the open areas in between their houses. It was either used as play grounds or for hanging of washed cloths.

3.5 Limitations

The project faced some limitations as some public officers were not willing to give out classified information. Published materials on the subject, in Ghana were difficult to get.

CHAPTER FOUR

FINDINGS AND DISCUSSIONS

4.1Preamble

This chapter contains the results and discussions from the previous chapters. It contains the proposed required spaces for orphanages in Ghana, the formula that should be used to calculate the bedroom sizes and schedule of accommodation as well as the outcome of the absence of a policy for orphanage design.

4.2 Determining factors

The main determining factors were the dependency ratio, HIV/AIDS menace, and socio-economic activities.

4.2.1 Dependency ratio

According to the deductions from the literature search and interviews, on the average in every household of ten people, about 9 of them depend on only one person. The responsibility usually lies on the grandparents, the working mothers and the working aunties. On few occasions the fathers and uncles take up responsibility. The dependants are their children, children of other relatives and other older relatives. Dependency ratio stands at 87.1% which is very high. This is one of the factors responsible for the negligence of orphans in the extended families.

4.2.2 HIV/AIDS menace.

According to the ministry of health of Ghana there has been a decrease in the percentage of HIV/AIDS cases from 3.6% of the population in 2005 to 1.9% of the population in 2008. The decrease is by fraction of the population. If the population is increasing by 8% in 2008 per annum as compared to 2.7% in 2004, then even though the fraction of people (percentage) infected with the HIV/AIDS is small, the number infected is more than the number in 2005. This simply indicates that the number of orphans that is produced and will be produced in the next five years is outrageous.

4.2.3 Socioeconomic activities

According to the statistical survey department of Ghana (2005) only 50% of both females and males are involved in economic activities. This makes it difficult for the majority of the population to support their nuclear families as well as extending this support to other relatives. It can be easily implied that there is a possibility of high juvenile crime rate; girl child prostitution and child labour among the lot since the support of these young ones(orphans) are inadequate.

4.2.4. Conclusion

To conclude, the high dependency rate, the menace of HIV/AIDS, the hash socioeconomic situation, increasing number of vehicular accidents and maternal mortality lead to increase in the number of orphans. These are directly and indirectly responsible for the need for hospices including orphanages to rescue the growing population of orphans and its implications.

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4.3 Private Operators

The government of Ghana is not actively involved in the funding of majority of the orphanages in the country. The government has no national policy on orphanages. Majority of the orphanages are privately owned. They construct these institutions according to their taste and discretion. This has resulted in very bad designs and organizational structures. To solve this problem it will be just appropriate that the government of Ghana come up with national policies to govern the construction and running of these orphanages.

4.4 Concept

Based on the findings from the research the philosophy will be the focus of design development.

To achieve such a philosophy the following concepts was derived;

1.   The use of courtyards to integrate various families, serve as a meeting point and enhance unity. It will also create a sense of belonging, confidence and strengthen family ties.

2.   The integration of nature into design. This is by playing with sun, water, trees and stone as an integral part of the design.

3.   The use of landscape and topography. This will be done by terracing of slopes and ramping of certain places on the land. It will enhance the child's physical development.

4.   The use of hedges and levels as barriers will also be employed.

5.   The integration of technology (biogas, solar energy, and windmill) into design to create a self sustainable facility.

6.   The integration of vernacular architectural elements in the design.

4.5 Spatial requirement

Based on the case study the developmental theory (Erick Eerikson, 1965) and other observations, the following spaces were developed. These spaces are the minimum that will make an orphanage run successfully and meet the United Nations(UN) children's right to education("children have right to education and to ensure their growth and development in order to fulfil their individual aspiration") and human right in Ghana in times present.

The House of Residence is the first place where the child could be made to feel comfortable. The Play ground enhances the child's ability to learn through play and develop their psychomotor skills. The Administration should be the first point of call and will be the main engine for running the facility. The Preschool, the Primary school and the Junior Secondary school or Vocational school should be used as the means to achieve the United Nations (UN) children's right to education. The Health post can serve as a rescue point in case of any medical emergency. To create confidences and build up social interactive skills in the orphans, it will be appropriate to introduce a recreational facility.

4.6 Schedule of Accommodation

After the measurement of rooms of several orphanages was made, it was related to the number of people in them. The finding was then related to the minimum space occupied by an adult according to the architect's data. The average circulation space was arrived

and a formula proposed to help come up with the minimum space required for rooms in orphanages in Ghana.

Table 4.1 area (m^2) of spaces in various orphanages visited

	Baptist children's orphanage		SOS children's village	Osu children's home	Lighthouse christian orphanage		TOTAL
Room size(m^2)	girls	13.5			Girls	29.5	
	boys	30			Boys	32.35	
					Toddlers	29.5	
	Total	43.5	16	18.8	total	91.35	169.65
No. of Occupant's	Girls	8	4	4	Girls	10	
	Boys	10			Boys	12	
	total	18			Toddlers	18	66
					total	40	

Space occupied by one person=169.65/66 = 2.6m^2

According to the architect's data one lying adult occupies (2x.6) m2= 1.2m^2

Therefore circulation 2.6-1.2=1.4→this is 140% of the space occupied by a lying adult

Taken that space occupied by a lying adult is 'AS' a formula;

140%AS + AS = space occupied by one orphan.

This formula can be applied in calculating the accommodation schedule as well as the floor index provided the number of orphans and the total land area is known respectively.

Table4.2 calculation of the area of one room

HOUSE OF RESIDENCE				
SPACE	NUMBER OF SPACES	NUMBER OF PEOPLE	SPACE REQUIRED(m^2)	TOTAL SPACE REQUIREMENT
TODDLERS	2	4	(140%x1.2)+1.2= 2.6m^2	4x2x2.6= 20.8m^2
SUM OF SPACES		20.8m^2		

4.7 Conclusion

From these findings it can concluded that due to the change in family size, dependency ratio, standard of living among individuals and technology the need for orphanages well designed to fit the dynamic trends in culture is necessary.

With such spaces derived at the earlier part of this chapter the facility can heal emotional wounds of the orphans and also give the children the right to education and enhance their human rights.
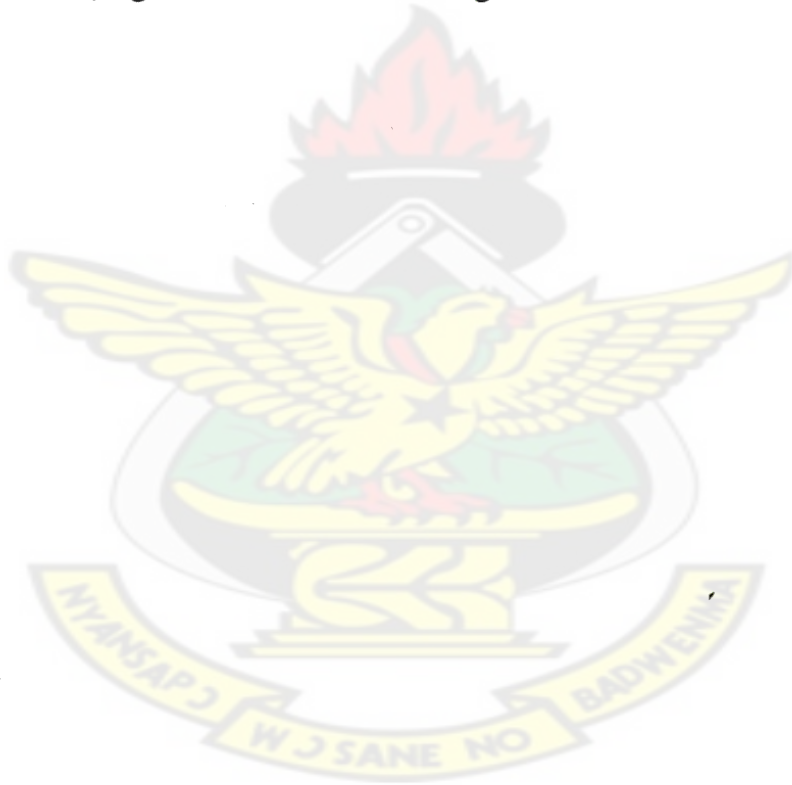
CHAPTER FIVE

Recommendations and Conclusion

5.1 Preamble

This chapter contains the proposed recommended ideal situation or design. It contains the suggested materials the kind of engineering services and the conclusion of the entire thesis.

5.2 General

Based on the various research findings and discursions, a wholistic development of the child and his or her environment will be the focus of design development. To the best of opinions this proposed situation below is the ideal prototype that should be used as the model for the entire country. This is because it responds to the climatic conditions, the socio-economic situation in the country and also caters for the psychology of the users.

The design should be divided into three zones; the residential, the recreational and the educational zones. This is based on the concept of the private, public and semipublic spaces.

The public is the educational, the private is the residential and the semipublic is the recreational and administrative.

The educational facility should on the site and it should comprise of the preschool, the primary school, junior high school and vocational school and its supporting facilities.

The educational facility is the main supporting facility that will generate funds for the orphanage.

The recreational and administrative facility comprises of the administration, the social centre and the play grounds. This facility should have spaces for parking and storage.

The housing or residential facilities entail the houses for the orphans which should been arranged based on the concept of the court yard.

The houses should be arranged around the playground and open areas to create a common point to meet.

The arrangement should be such that one has to enter the court yard before entering the individual houses causing the orphans to meet at one point in time. This creates a sense of belonging.

In between every two houses should be an open area which is created by the combination of the two L-shape houses. This open area is a common meeting place for the children. They will end up creating a suitable use for those places.

The use of sustainable technology to create a self sustaining design should also be introduced into the facility. There could be the uses of wind mill to pump water from the bore holes into the over head water reservoir and then later distributed to the individual houses by gravity. The introduction for the preparation of the biogas should be considered. The entire design should be such that there is heavy pedestrianisation to enhance the physical wellbeing of the people using the facility.

5.3 Plan

The basic plan forms used that could be used are the linear, the L-shape, and curvilinear or amorphous in only the case of the pre school.

The L-shape is preferable because of its ability to create open spaces when combined with one another. It also gives the ability for easy supervision by the care giver.

It is primarily formed as a result of two linear forms put together at an angle of 90 degrees. This means that there can be easy application of cross ventilation to cool the room by wind passage and removal of moist to prevent sweating walls as a result of high humidity.

They should be large openings since the relative humidity is high in this part of the world and will have to allow for fast movement of still air and evaporation of water.

The L-shape plans should be used mainly in the housing scheme or residential facility. They should be position in North West and south east orientation to allow for free flow of south western winds as well as prevent the direct western sun.

Its orientation can also be influenced by the nature of the land contours. It should be positioned such that it will not cut across the contours.

The linear plan forms can also be used to aid in modification of climate by allowing sufficient natural lighting, natural ventilation and incorporate water into its design.

5.4 Elevation

With the elevations, the basic design principles should be the guide lines used. There should be the use of basic shape, (squares, circle, rectangle and triangle). This is because children can interpret these shapes well and try to interpret complex forms by breaking them into basic shape. The use of shading devices should be minimal because of the building orientation, the use of corridors and long eave. The use of recesses could be

employed to create the effect of the crate shading device. This will be appropriate because of the fact that the houses are prototype.

5.5 Materials

The main materials used should in construction is that from the locality a few examples are concrete, tek blocks, timber and long span aluminum roofing sheet. These are a few options:

Table5.1 material schedule for facility

ELEMENT	FACILITIES	MATERIALS
FOUNDATION	All facilities	Concrete
WALLS	Housing scheme (facility)	Sandcrete blocks
	Clinic	Tek blocks
	Social centre	Tek blocks
	Educational facility	Sandcrete blocks and timber
	Pre school	Sandcrete block
	Administration	Sandcrete
	Volunteers residence	Tek blocks
FLOOR	Housing scheme	Terrazzo
	Clinic	Terrazzo, slashed rock finishes
	Social centre	Wood. Slashed rocks.
	Educational facility	Concrete screeding
	Pre school	Concrete screeding, gravels,
	Administration	Smooth terrazzo
	Volunteers residence	Terrazzo
	All wet areas	Rough terrazzo
ROOF	All facilities apart from the preschool	Long span aluminum roofing sheet.
ROOF	preschool	Teggolar shingles or felt shingles
WINDOWS /DOORS	All facilities	Combination of Timber and aluminum and glass
CEILING	Housing scheme (facility)	7mm thick ply wood
	Clinic	7mm thick ply wood
	Social centre	7mm thick ply wood
	Educational facility	7mm thick ply wood
	Preschool	7mm thick ply wood

ELEMENT	FACILITIES	ELEMENT
CEILING	Administration Volunteers residence Multipurpose hall	10mm thick chip board 7mm thick ply wood 10mm thick chip board

5.6.0 Engineering Services

5.6.1 Electricity

The main source of electricity should be the national grid but provision for power outages should be made. This could be by the use of solar energy or a stand by generator.

5.6.2 Water Supply

The main source of water supply should be the pipe borne. This should be subsidized by bore hole around the highest point of the site. The water from the bore hole will be pumped to an over head water reservoir.

5.6.3 Wastewater Treatment

The use of a central sewage system should be employed where sewage from all the building will be piped through 100 mm diameter branch pipe into a 200 mm diameter central PVC pipe which is connected at 10 meters intervals with inspection chambers into the central septic tank.

The sewage can then be diluted with waste water from the facility and stirred. The slurry can be transferred into the digester and biogas is produced for cooking in the facility. When the slurry is exhausted could be transferred to the soak away and the solid part

used as manure. The waste water from the facility should be disposed at the central disposal through branch duct or 75 mm diameter pipes which are connected to a 200 mm diameter central PVC pipe which conveys it to the biogas station and later into the soak away.

5.6.4 Telecommunication

The use of wireless phones, telephones and mobile phone will be the main source of communication tools.

5.6.5 Fire Protection and Safety

Fire extinguishers will be placed in every house in case of any fire out break. Fire hydrant will be located at vantage points in case of fire out break in the community.

Though the facility is heavily pedestrianised one main road divides the facility into two and it is the emergency route. It will be used basically by fire service cars in case of emergency.

By design the building spacing is such that when there is fire outbreak in one of the facilities it will hardly affect the other causing fire out break.

5.7 Refuse Disposal

Refuse points will be provided at regular interval over the facility and every house hold is responsible for the disposal of one refuse point daily as well as the one in their homes. It will be carried away to the central refuse point in the village.

At the educational facility it will be carried away each day by students. Each class will be responsible for one disposal point and a plot on the compound.

5.8 landscaping

Due to the nature of land there should be the use of terracing to achieve a more flat surface for the prevention of erosion and give a good surface for building. Most of the pedestrian walk ways should be covered with gravels which are harvested from the site. There should be few areas which should be covered with cement pavement block.

All the car parks should be covered with cement pavement blocks. The streets should be tarred with bitumen.

The soft landscape must comprise of the terraced lawn in front of the school blocks and this should dominate the total landscape in the residential facility. Hedges should also be planted and used as barriers in the facilities. The main soft landscape material that will be used is grass.

There should be the integration of trees on the land to create shade. Both the hard landscape and soft landscape should be well designed to achieve and enhance the aesthetics of the site.

5.9 Costing

10.1 Preliminary cost estimate was based on the unit cost method.

Two storey domestic- ¢3,000,000 per unit area (m²).

One storey domestic- ¢1500,000 per unit area(m²).

Public facility- ¢2000, 000 per unit area (m²).

Play ground -¢200,000 per unit area (m²).

5.10 Phasing

Phase one- residential facility

Phase two- recreational facility

Phase three- educational facility

5.11 Conclusion

From the investigations, discussions and proposal of this thesis, one can conclude that this thesis apart from creating a conducive environment for the orphan child's development, it also addresses a sociological, economical and cultural problem nation wide. It is a typical example of how architecture contributes to humanity and National growth. The scheme sort to meet and satisfy the basic human need for shelter, development of personal skills, satisfying emotional needs and also portray how architecture can be used as a tool to heal broken emotions and integrate institutions with the society. The design outcome of this thesis presentation shows the author attempt to demonstrate how architecture can be used in the total development of the child irrespective of where it is cited in the country.

APPENDIX 'A'

Guidelines for orphanages in Ghana

Definition of children in need of care and protection

The children's Act. Sub-part II, section 18 (1) a-m. defines a child in need of care and protection. It states that a child is said to be in need of care and protection if he/she:-

a. Is an orphan or is deserted by relatives.

b. Has been neglected or ill-treated by the person who has care and custody.

c. Has a parent/guardian who does not exercise proper guardianship.

d. Is destitute.

e. Is under the care of parent/guardian who by virtue of criminal or drunken habits is unfit to care for the child.

f. Is wandering and has no settled place of abode or visible means of subsistence.

g. Is begging or receives alms whether or not there is any pretence of singing, playing, performing, offering anything for sale or otherwise or is found I any street, premise or place for the purpose of begging.

h. Accompanies a person who is begging or receiving alms.

i. Frequents the company of any reputed thief or reputed prostitute.

j. Is residing in a house or part of a house used by prostitutes for the purpose of prostitution or is living in circumstances calculated to cause, encourage or favor the seduction or prostitution of or affect the morality of the child.

k. Is a person in relation to whom an offence has been committed or attempted under sec.314 of Act 29/60 (criminal code) on slave dealing.

l.   Is found acting in a manner from which it is reasonable to suspect that he/she is or has been soliciting or importing for immoral purposes.

m. Is otherwise exposed to moral or physical danger.

Registration/Regulation

The Department of social welfare is the Government Statutory Agency, which has the mandate to regulate the operation of children's homes or orphanages vide part VI, sub-part I, sect.105-114 of the children's Act. To fulfill this mandate, the Department has come out with these rules and procedures.

Registration begins at the sub-district levels where the home is located. The local office of the Department of Social Welfare investigates the background, mode of operations physical condition, tools and equipments, personnel, financial procedures and surroundings. This report together with a recommendation from the District Assembly is then sent to the Head Office – Accra where it is studied and verified. If satisfied, the Director of Social Welfare registers the home and issues it with a certificate.

An application for the establishment of an orphanage shall be made on Form 1 attached to the regulations.

Minimum Standards for Orphanages and Residential Facilities:-

A Social Welfare Officer will take these into considerations when writing the report

Standards

A. Each child should have:

A bed, a plastic covered mattress, two sheets, a toothbrush, School uniform

Five sets of clothes, A towel, A sponge, Soap, Mosquito net (on bed),Mosquito net (on window),Access to school or training ,Access to secure outside playing area, Access to toys and reading books,Shoes,Slippers,3 balanced meals a day, Fruit at least once a day, School text books and materials

B. The living area should be:

Clean, Tidy, Hygienic, Safe, Well ventilation, Maintained, Sufficient for the number of children.

C. Medically all the children should have been :

An average weight for height, Vaccinated, Screened for TB, Screened for anemia, Screened for sickle cell for sexual abuse, Screened for HIV

D. The institution:

Has been registered, keeps records of children correctly and submits them to DSW and District Assembly. (Records to kept are set out in a schedule attached),clear account books ,clear record of donations, Submit yearly account to DSW donors, has its staff registered for SSNIT & Health Insurance, has 10 to 1(or less ratio of children to care givers),encourages adoption and has ongoing training for staff

E. Health: the institution has

Infirmary room building, Infirmary furnishings, First aid, Routine medicines, Full time nurse, visiting doctor, Food, health care for PLWHA

F. Education: the institution has

Sponsored education off premises, KG classrooms, Primary classrooms, J.S.S. class rooms, Skill training, Literacy classes for inmates and staff, Sports infrastructure, Sports equipments, Computer classes, Library TVs and School equipments

G. Agriculture: the institution

Vegetable garden, Farmland, Poultry project, Rabbitry and Other projects (mushrooms, bee-keeping, groundnut, Shea butter etc

H. Income generating activities:

School fees, Bus services, Child care, Guesthouse, Hall of hiring and volunteer quarters etc.

Guidelines as stipulated by the children's act , 1998(ACT 560)

Every home/orphanage shall fulfill the following condition:-

a. A home shall be housed on the ground floor of building unless otherwise approved by the Department of Social Welfare.

b. A home, which is not located on the ground floor of the building, shall have grills on the windows.

c. The location of the home shall be away from the public toilets, rubbish dumps, main roads and anything, which may pose a health or safety hazard to the occupants

d. No single door shall be installed in a home

e. The floor in the home shall be bare concrete and shall be leveled, washable, damp proof with a non-slip surface.

f. Every home shall have designated areas for activities such as recreation and shall have specified storage area.

g. Drains in homes shall be covered

h. A home shall be planned and built to accommodate children with disabilities

i. A home shall have Management Committee must include a Social Welfare Officer

j. Any Management Committee must include a Social Welfare Officer

k. Any person who obstructs or hinders the department of Social Welfare from conducting an inspection shall be sanctioned

l. The decision to put a child up for adoption shall be taken by the Management of the home, in consultation with the Department of Social Welfare. Legal adoption shall be the sole responsibility of the Department.

m. Parent/Guardians/Relations of the child at the home shall be encouraged to pay regular visits in order to promote the welfare and protect the interest of the child

n. Each child shall be provided with a bed, cot, or mat, clothing etc. by the approved home.

o. A home shall provide at least three (3) toilets for every ten(10) children in the home

p. A home shall ensure that an adequate number of chamber pots are provided for the number of young children in the home

q. A home shall provide an adequate source of clean water and a towel for each child

r. A home shall provide annual report to the Department of Social Welfare as well as situational report as the case may be. (the annual report may be in the form attached)

s. There shall be a first aid box in every approved home

t. A medical doctor should visit the home once every quarter or when necessary to attend to the needs of the children

u. If a home fails to maintain the required standard, its license to operate may be cancelled or suspended b the Department of Social Welfare

v. Every home shall provide play materials and equipments for children to play with

w. Where a child cannot return to his parents and has also not been placed with any adoptive parent, or fostered; that child shall be encouraged and assistant by the home to become independent and self-reliant; and Social Welfare will continue to keep regular contacts with him.

x. Individual files should be kept on each child

y. There must be a placement committee on adoption in every home on which the Director shall be represented.

(Department of social welfare of Ghana, introduction and origin in Ghana, a guide line for orphanage in Ghana)

APPENDIX 'B'

Interviewed questions

1. What is the policy of the government of Ghana on orphanages as an institution?

2. What are the implications of the absence of policies governing orphanages?

3. What are the main funding agencies for the construction and running of orphanages in the country?

4. Are there enough workers in the various orphanages

5. Are they skilled?

6. What is the social welfare's effort towards increasing the number of skilled workers?

7. What are some of the professional skills needed to run orphanages effectively that have been neglected?
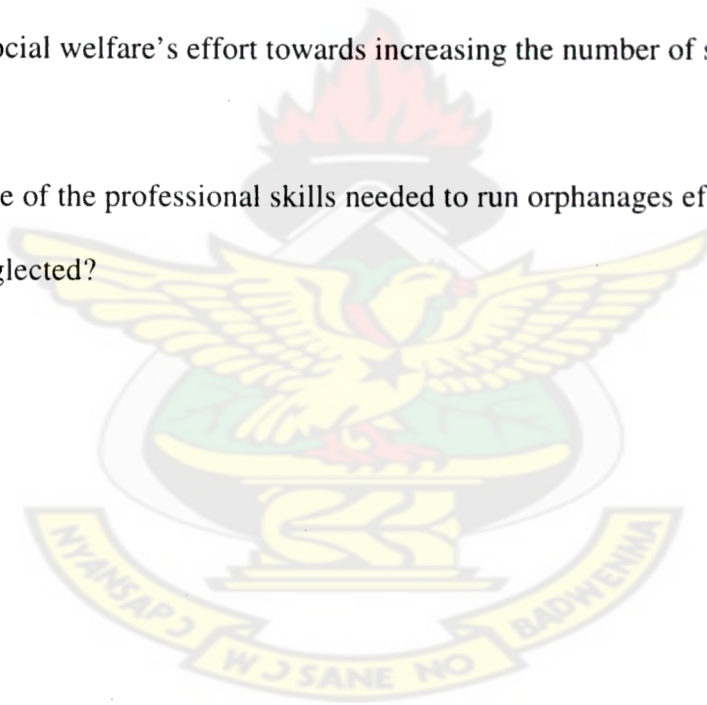
Baptist Children's

Orphanage(Trotor)
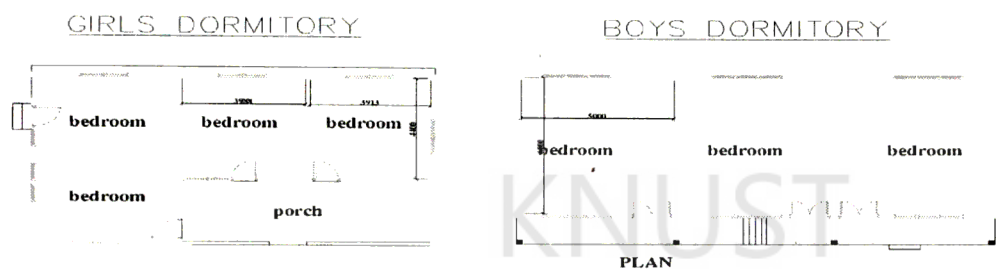
Figure C.1 ground floor plan for girls and boys respectively

Light House Christian Orphanage
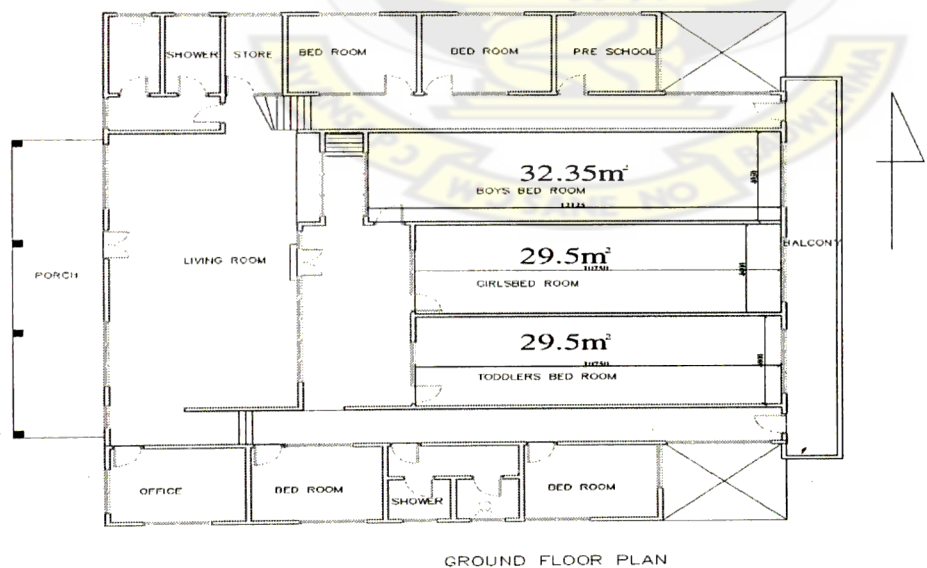
GROUND FLOOR PLAN

Figure C.2 ground floor plan for light house Christian orphanage

Osu Children's Home
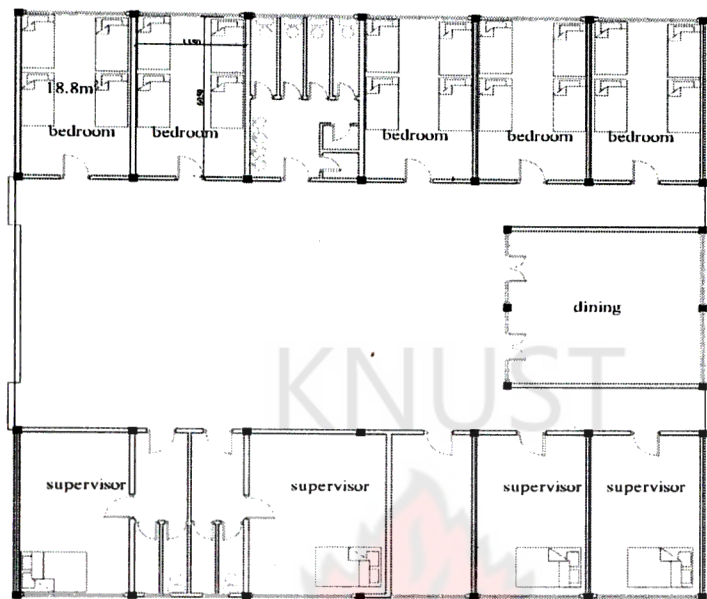
Figure C.3typical house type at Osu children's home
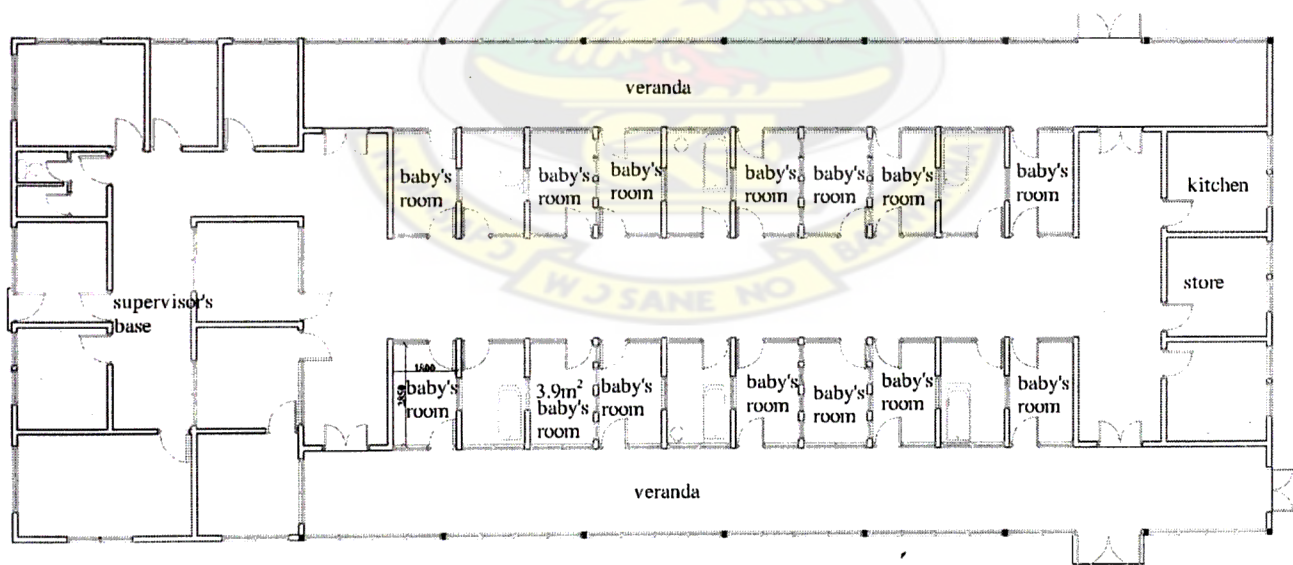
Figure C.4 Nursery at Osu children's home

DEPARTMENT OF SOCIAL WELFARE
DATA AND INFORMATION ON CHILDREN'S HOMES
AND ORPHANAGES AS AT OCTOBER, 2005

REGION	NAME OF INST.	POSTAL, TEL; E-MAIL ADDRESS	PARTIC. OF PERSON IN-CHARGE	TYPE OF INST. (PUB OR PRIV.)	DATE OF ESTB.	POP. OF CHN (MALE & FEMALE)	NO. OF STAFF IN INST. (MALE & FEMALE)	SOURCE OF FUNDING	EXISTIG CONDTION OF INST.
1 UPPER WEST	St. Joseph's Orphanage, Jirapa	Tel. 0756 - 22883	Sister Sabina A-Iyeh (Nursing Officer)	Private	March 1939	19 (6Boys 13Girls)	13 (3Male 10Female)	Catholic Church & Dept of Social Wel	Grade B
2 UPPER EAST	Mother of Babies Home' Bolgatanga	P. O. Box 351, Bolga	Ms Matilda Yelbaya	Private	1984	36 (22male 14female)	14 (4male 10female)	Catholic Church	Grade B
	Afrikids Next Generation Home Bolga	P. O. Box 600, Bolga Tel. 072-23748	Mr. Nicholas Kuma	Private	December, 1997	30 (22male 8female)	9 (7male 2female)	Catholic Church	Grade A
	Anglican mother and Baby Home Bolga	P. O. Box 46 Bolga	Ms. Rebecca Anyoore	Private	1986	11 (6male 5female)	5 (1male 4female)	Anglican Church	Grade B
	Afrikid Charity-Home	P. O. Box 600 Bolga	Lady Awuni	Private	1991	27 (17male 10female)	3 (2male 1female)	Presby Church	Grade C
	Afrikid Centre for the Youth	P. O. Box 600 Bolga Tel.0208256685	Mr. Dagore	Private	2004				

REGION	NAME OF INST.	POSTAL, TEL; E-MAIL ADDRESS	PARTIC. OF PERSON IN-CHARGE	TYPE OF INST. (PUB OR PRIV.)	DATE OF ESTB.	POP. OF CHN (MALE & FEMALE)	NO. OF STAFF IN INST. (MALE & FEMALE)	SOURCE OF FUNDING	EXISTIG CONDTION OF INST.
3 NORTHERN	Anfani Children's Home, Tamale	P. O. Box 112 Tamale	Mrs. Fati Issaka	Private	Jan. 2001	10 5male 5female	7 1male 6female	Indiv philantropists, Organisations, Board of Directors	Structure is alright but it lacks play equipment.
	Tamale Children's Home	P.O. Box 57 Tamale	Ms. Augustina Quianoo Supervisor (SSDO)	Public	1969	25 17male 8female	22 5male 17female	Central Gov't & Donations	Poor state Stru. needs rehabiita-tion Inadequate funds Inadequate care givers
4 CENTRAL	Faith and Fire Orphanage Home, Twifu Darmang	P. O. Box 85 Twifo Praso e-mail ffmigh@yahoo.com Tel. 022-411305	Mr. Michael Jacob (Project Manager) Masters Degree	Private	3rd August 2000	13 10male 3female	5 2male 3female	Faith & Fire Revival Ministries Int. (USA)	Grade C
	LA- Twins Children's centre Twifo Praso	P. O. Box 36 Twifo Praso	Mr. charles Therson-Coffie (Director & Proprietor) 3yr. Post Sec. 'A'	Private	1st March, 2000	27 17male 10female	3 1male 2female Proprietors personal contribution	Grade D	
	Nana Awaa Orphanage Home, Twifo Wawase	P.O.Box 10 Twifo Wawase	Mr. Michael Sikansuo (Co-ordinator	Private	April 199	71 20male 51female	5 2male 3female	External Donor support Produce from farm	Grade E
	Living Hope Orphanage	P.O.Box 1000 C/Ctel.042-33371 Email-livinghopeinternational @yahoo.com Tel:0244-880128	Mr.Emman-uel Asomaning	Private	15th May 2003	20 7Male 13Female	18 Male-5 Female-13	Foreign	GradeB
	The Lighthouse Childens Home	P.O.Box cc718 Cape Coast Tel.37529/36824 lighthouse4chn@yahoo.com	Galen Weber	Private	24/5/02	30 Male-24 Female-6	14 Male—8 Female-6	Light House Ministry Canada	Grade B

Name	Address	Contact		Year			Local/Personal	Grade
Human Service Trust Orphanage	P.O Box 364 AD. C/C Cape Coast Tel 32055 servicetrust@hotmail.com	Mrs. Nancy Arkorful	Private	1997	25 Male-12 Female-13	7 Male-4 Female 3		Grade C
New Life International Orphanage, Cape Coast	P.O.Box AD 927 Cape Coast Tel.0244-618065 nlyffe@yahoo.com.uk	Madam Ruby Ayivorh	Private	25/5/98	45 Male-20 Female-25	19 Male-7 Female-12	Gospel/Exprees Usa, Simpa Family Holland	Grade C

REGION	NAME OF INST.	POSTAL, TEL; E-MAIL ADDRESS	PARTIC. OF PERSON IN-CHARGE	TYPE OF INST. (PUB OR PRIV.)	DATE OF ESTB.	POP. OF CHN (MALE & FEMALE)	NO. OF STAFF IN INST. (MALE & FEMALE)	SOURCE OF FUNDING	EXISTIG CONDTION OF INST.
5 EASTERN	Tomo-ni Childrens Home	P.O.Box 78 Mpraesso Tel. 0277737868	Benjamin Amankwah	Private	1997	16 12male 4female	9 6male 3female	Churches Individs Benev. Orgs	Grade C
	Bless The Children International ahaome	P. O. Box 67 Nkweatia Kwaho Tel. 0244-257767 giyebo@yahoo.com	Rev.Jerem-iah Yeboah	Private	June 2000	22 15male 7female	6 2male 4female	Ozark Baptist Church America	Grade B
	Baptist School Complex &Orphanage	P.O.Box1950 Koforidua Tel.081-22300 Mobile: 0208131702 0244-858005	Rev. Victor Ofori Amoah	Private	16th Sept 1996	192 Male-100 Female-92	Male-4 Female7	The body of christ Baptist Chapel and other philantropist	Fair D
	Hour of Grace Children Home	P.O.Box 16 huhuya graceorphans@yahoo.com	Evangelist Lawrence Gbengor	Private	18th March 2003	20 male-9 Female-11	9 Male-4 Female-5	Elim Pentecostal U.K	Grade C
	Hugs Tender Loving Care	P.O. Box20922 Accra Tel. 021-719125/0244-366265	Adjetey Ollan	Private	11TH Sept 2004	20 Male-7 Female-13	11 Male-5 Female-6	Coral Gray & Family – U.K	Grade B
	Osenase Orphanagè	P.O.Box 21 osenase Tel. 0244366082 osenaseorphan@yahoo.com	Rev.Dr.JRK Mensah Elim Evangelical Church North Kaneshie	Private	29th Jan. 2002	33 22male 11female	8 3male 5female	Seeway Trust-U.K. Elim Evang. Church	Grade B
	Oumfuor Osei Tutu II orphanage	C/o Oppong Kyei Kwaku Sarfo P.O.Box 949 Nkawkaw Tel- 024-3108323	Opong Kyei Kwaku Sarfo	Private	2001	55 30male 25female	4 3male 1female	Proprietor	Grade C

REGION	NAME OF INST.	POSTAL, TEL; E-MAIL ADDRESS	PARTIC. OF PERSON IN-CHARGE	TYPE OF INST. (PUB OR PRIV.)	DATE OF ESTB.	POP. OF CHN (MALE & FEMALE)	NO. OF STAFF IN INST. (MALE & FEMALE)	SOURCE OF FUNDING	EXISTIG CONDTION OF INST.
6 ASHANTI	Adullam Orphanage	P.O.Box 582 Obuasi. Tel 051 91334 adullamorp@hotmail.com	Rev. Mrs. Louis Timothy	Private	August 1999	Male-94 Female-34	Male-16 Female-16	Donation from churches& individual organisations	Good but needs additional classroom block
	Kumasi Childrens Home	P.O.Box 66 Kumasi Tel 05122891	Supervisor	Public	1965	Male-37 Female-15	Male-6 Female34	GOG Individuals, Churches NGOs	Fair but needs expansion&renovation
	Mampong Babies Home	P.O.Box 151 Tel. 0561-22379	Mabel Asafo Adjei Midwifery	Private	1967		Male-13 Female-17	Permanent Male-10 Female-26 Casual Male-1 Female-7	Good
	King Jesus Charity Home(Boadi-K.N.U.ST	P.O.Box6759 Kumasi Tel 051 63246	Rev. Kofi Owusu Afriyie	Private	1955	Male-35 Female-30 Babies Male-2 Female-1	Male-5 Female-1	Donation	Needs Buildings, Textbooks, Stationary & Furniture
	Ahmed Uwaisi Centre, Boadi-Junction KNUST	Tel:051-61830 0244-777922	Mr.Abdallah Mohammed	Private	2000	Male 170 Female-40	Male-5 Female-8)	African Muslim Agency (Kuwait	Needs lab & plyground
	Ashan Development Childrens Village Edenase	P.O.Box SE 1307 Kumasi Tel 0244 977883	Mr. Jim Akwasi Kumi	Private	2002	Male-30 Female-20	Male-5 Female-6	Donation of funds from Holland	Uncompleted School block
7 BRONG AHAFO	World of Friends Berekum	P. O. Box 548, Berekum Tel. 0208115124	Dr. Nana H. Ababio	Private	January 1990	Male -14 Female- 11	Male -3 Female-5	Dues& NGO Funds from Sweden	Good
	Bethesda Baptist orphanage Techiman	P. O. Box 248 Tel.061-28160 Techiman	Rev. Stephen J. Volante	Private	12/6/96	Male-4 Female-1	Male-2 Female-2	Church & Donations	Satisfactory
	World Friends, Nkoranza	P. O. Box 141. Tel-061-23212 Nkoranza	Alhaji B. Samo	Private	1997	Male-6 Female-3	Male-0 Female-2	Voluntary Contrib.	Fair

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REGION	NAME OF INST.	POSTAL, TEL; E-MAIL ADDRESS	PARTIC. OF PERSON IN-CHARGE	TYPE OF INST. (PUB OR PRIV.)	DATE OF ESTB.	POP. OF CHN (MALE & FEMALE)	NO. OF STAFF IN INST. (MALE & FEMALE	SOURCE OF FUNDING	EXISTIG CONDTION OF INST.
8 VOLTA	Volta Home Orphanage Ve-Dome	P. O. Box 61 Ve-Golokwati	Prophet Amnabi Issah	Private	1992	Male - 22 Female - 18	Male - 3 Female – 3	Self funding and Donations	Lack Amenities needs support
	Deladem Orphanage	P. O. Box 12 Golokwati	Miss Charity Siayor	Private	18-1-2002	Male - 26 Female -31	Male - 1 Female -4	District Assembly and Donations	Grade D
	Eugemot Orphanage	C/o Eugemot Home, Ve – Kolonu	Mad. Eugenia Kahu & Mr. George Motogbe	Private	-----------	Male - 20 Female – 9	Male - 2 Female -5	NGO, ICGC	Lacks Amenities need assistance
	Missahoe Charity Orphanage	P. O. Box 186 Kpando	Mawusi Dotse	Private	Oct. 2002	Male - 26 Female -11	5 Volunteers	Charity Sisters Foundation	Grade D
	Dr. Asase Memorial Orphanage	P. O. Box HP 665 Ho	Mrs. Irene Asase Dagadzi	Private	6-9-96	Male - 2 Female - 5	Male - 2 Female – 3	From Founder / Director	Satisfactory C
	Children of Zion Orphanage	P. O. Box 42 Adidome	Sharon Titian – Director	Private	28-1-05	Male - 12 Female -15	Male - 1 Female – 5	Donation and Transport Services	Satisfactory C
	Friends Orphanage	P. O. Box AZ 94, Klikor – Agbozume	Rev. David K. Kpofor of Seek First Ministries	Private	1993	Male - 20 Female - 5	Male - 2 Female – 5 Dutch Volunteers 2	Fees and Donations	Satisfactory C

REGION	REGION (Institution)	POSTAL, TEL; E-MAIL ADDRESS	PARTIC. OF PERSON IN-CHARGE	TYPE OF INST. (PUB OR PRIV.)	DATE OF ESTB.	POP. OF CHN (MALE & FEMALE)	NO. OF STAFF IN INST. (MALE & FEMALE)	SOURCE OF FUNDING	EXISTIG CONDTION OF INST.
GREATER ACCRA	Good Shepherd Orphanage Odupong Ofankor	Good Shepherd Odupong-Ofankor Bohye Aseso near Kasoa Mobile: 0244-469028 bishopkwakuode@yahoo.com	Paul Kwaku Addei, Jnr.	Private	June 2002	Male 32 Female 22	Male 0 Female 6	Donations	Good
	*** Chance for Children – Accra	P. O. Box 251, Accra Mobile: 0244-881 chanceforchildren@yahoo.com	Annor Kortey	Private	***	Male 0 Female 0	Male 0 Female 0	***	***
	Teshie Orphanage	P. O. Box LA 425 Tel: 021-715098	Janet Parker	Private	31/05/1995	Male 21 Female 19	Male 2 Female 3	Donation	Good
	Peace & Love Orphanage – Adenta	Mobile: 0277-776600 vitiaa222@yahoo.com	Vetiina Appiah	Private	-	Male 0 Female 0	Male 0 Female 0	-	-
	Agape Children's Home	P. O. Box 17182 Accra Mobile: 0243-103302 / 0244-260855 peacelove@hotmail.com	Rev. Joseph Egyir-Asam Bright Doe	Private	July 2000	Male 44 Female 20	Male 8 Female 5	Agape Gospel Mission Inter. & Donation from partners	Good
	Christ Faith Foster Home – Madina, Accra Frafrafa	P. O. Box 1241 Mobile: 0244-059219 020-8136971	K. Adu Boahene	Private	1972	Male 37 Female 11	Male 2 Female 8	Benevolent Societies and Oden Walden Heider mission Germany	Good
	Osu Children's Home, Accra	P. O. Box GP 640, Accra. Tel: 021-7776773 osuhome@hotmails.com	Mrs. Helena Obeng-Asamoah	Public	1949	Male 76 Female 70	Male 4 Female 67	GoG Donations	Good
	The Least of These Children's Home	P. O. Box OS 1808, Osu – Accra Tel: 021-322609 Mobile: 0244-619910	Joseph Class Peters	Private	28/04/05	Male 7 Female 9	Male 1 Female 2	Donations Internal and External (USA)	Good
	Missionary of Charity Sisters Ashaiman – Tema	Tel: 022-312929	Rev. Sister Lisa	Private	1988	Male 14 Female 21	Male 4 Female 19	Catholic Church Donations Local & Foreign	Good

REGION	NAME OF INST.	POSTAL, TEL; E-MAIL ADDRESS	PARTIC. OF PERSON IN-CHARGE	TYPE OF INST. (PUB OR PRIV.)	DATE OF ESTB.	POP. OF CHN (MALE & FEMALE	NO. OF STAFF IN INST. (MALE & FEMALE	SOURCE OF FUNDING	EXISTIG CONDTION OF INST.
10. WESTERN REGION	Word Alive Children's Home (Esiama)	P. O. Box 7 Esiama Tel: 031-28671 walive@ghana.com	Rev. Angate Morgan	Children's Home	March 20 03	Male 8 Female 9	Male 5 Female 3	Churches, Individuals, NADMO, District Assembly	Grade B
	Father's Home Care (Butumajebu) Sekondi	P. O. Box TD 1422, Takoradi Tel: 031-91308 fahocare@e-mail.com	Rev. Benard Ackah – Miezah	Orphanage	7th March 01	Male 12 Female 9	Male 2 Female 3	Individuals Groups, Churches, Companies	Grade B
	Angels of Hope (Tarkwa)	P. O. Box 106, Tarkwa Tel: 0362-20768	Mad. Yaa Fripoma Arhin	Orphanage	Dec. 2000	Male 8 Female 5	Male 2 Female 3	Groups, Individuals, Churches	Grade C
	Orphans Cry International	P. O. Box 369, TAkoradi	Mad. Vivian Young	Orphanage	Sept. 2000	Male 23 Female 45	Male 6 Female 7	Ghana Aids Commission, Groups, Fund Raising and Churches	Grade C

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