

Sustainable Architecture

Elixir Sustain. Arc. 124 (2018) 52253-52258

Elixir
ISSN: 2229-712X

The Development of Appropriate Balance of Outdoor and Indoor Urban Open Space Recreation Facilities in Owerri, Nigeria

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ARTICLE INFO

Article history:

Received: 1 June 2018;

Received in revised form:
17 November 2018;

Accepted: 28 November 2018;

Keywords

Open Space,
Recreation,
Outdoor,
Indoor,
Leisure,
Environment friendly.

ABSTRACT

The study focused on the need to evolve design criteria for designing and optimal utilization of recreational open spaces in relation to the appropriate percentage of indoor to outdoor facilities. The amount of time available for leisure, available facilities, accessibility to recreational areas, architectural planning, marketing and publicity, contribute significantly to people's participation and utilization quality in open space recreation. It is therefore necessary to collect and analyze primary social data to form the basis of architectural planning and design of recreational facilities for people in Owerri. The paper explored the constituents of existing recreational open spaces in the study area and using a well structured questionnaire, social data of preference the indoor and outdoor facilities data were derived to constitute the guideline to issue recommendations for the improvement and revitalization of the free and recreational spaces that will enhance quality of utilization.

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INTRODUCTION

OUTDOOR/INDOOR FACILITIES IN OPEN SPACE RECREATION

Open space urban recreational facilities should be functionally designed to make possible a varied program of activities. They should be designed and dedicated to meet the needs of all people in their respective neighbourhoods and countries. Recreation facility should provide a safe, healthful, and attractive atmosphere in which every person in the community or neighbourhood has the opportunity to enjoy his leisure by participation in activities of a social, creative, cultural, or physical nature.

In many neighbourhoods and communities, school facilities are adequately equipped to provide recreation programmes for youth, but other existing age groups are not always served. In recreation facilities which are planned and operated independently to accommodate a recreation programme for the total community, there is always a need to strike a balance between the outdoor and indoor facilities appropriate for optimal recreational assignment.

PLANNING AND DESIGN PROCESS

The planning and design of a recreation facility demand a precise and logical approach. The successful incorporation of accepted planning objectives will ensure maximum utilization of the allotted space. The preliminary design prior to its implementation should be considered in terms of the following:

- The most effective use of the entire area should be determined and utilization of the natural resources.
- The preliminary plan should include all the essential areas and facilities necessary to fulfill the program objectives.
- The design should be flexible in use and for future expansion.
- The facility should permit convenient access to and facilitate circulation within.

- Designed to ensure opportunity for its use by all members of the community, including the aging and disabled.
- Designed to encompass accepted aesthetic qualities that relate harmoniously with its environment.

PROBLEM OF THE STATEMENT

Probable open space recreation clients indicated very high need for open space recreational facilities as it has a high index role in reducing stress and improving human health. In spite of acknowledged health, social and intellectual benefits inherent in open space recreation, the existing ones are not fully activated and operate in dilapidated infrastructure that is not adequately designed.

It was discovered that the management and maintenance for recreation were in the hands of non professional and cannot sustain the level of demands by the city residents. The existing ones were not a product of research which could have identified the people preference in terms of need, habit and culture.

For the scientific fact that an ideal urban open space recreation centre requires appropriate contribution of outdoor and indoor facilities for optimal utilization and efficient function the need to investigate through social gathering as a premise for accurate assessment of facility requirements for a given recreational centre.

AIM

To evolve, appropriate strategy to harmonize the utilization quality of outdoor and indoor facilities in open space urban recreational centre.

OBJECTIVES

- Investigate through social data gathering to determine the level of preference in outdoor and indoor facilities.
- Examine their appropriate areas of needs in terms of passive and active recreation.
- Evolve an ideal design which will blend both as a model that can be replicated.

FUNCTIONAL FACILITIES FOR URBAN RECREATION BUILDING

A urban recreation building functions beyond the primary purpose of serving a single neighborhood. It is designed to offer a more diversified program in order to meet the complete recreational needs of all people in the urban. The community building is normally larger than a neighbourhood building and is usually located in a major recreation area such as a urban park or playing field.

a. Multipurpose Room

The multipurpose room should be designed to accommodate such activities as general meetings, social recreation, games, dancing, dramatics, orchestra practice, concerts and banquets.

The area of this room should be approximately 600 to 900 square metres. It should be rectangular in shape with a minimum width of 12 metres. The minimum ceiling height should be at least 4.8metres. The floor should have a nonskid surface to prevent common accidents. The floor should also be level in order to permit multiple use for meetings, dancing, dramatic presentations, etc.

b. Stage

A stage and related facilities are frequently included in a community center. They may be built in conjunction with the multipurpose room or, preferably, as a separate unit.

The stage proper should be about 6.0metres in depth, and proscenium opening should be at least two-thirds the width of the room. It is desirable that the approach to the stage from the floor of the main room be by inclined ramp with a nonskid surface to accommodate the physically disabled and aging and to facilitate the movement of equipment.

c. Dressing-Locker Room

A room for the purpose of changing clothes is necessary and should be in close proximity to the social hall-gymnasium. There are two accepted plans for checking personal apparel: (1) the use of locker rooms with metal lockers; and (2) the use of dressing rooms with a checkroom for checking clothing in wire baskets or nylon bags.

If the lockers are to be used in connection with outdoor sports, they should be located so the players will have access to them without going through the entire building. The suggested requirements for the locker room in a community recreation building are as follows for men and boys, 200 lockers; for women and girls, 150 lockers. The placement of lockers should take into account the space requirements of the disabled.

The floor of the locker room should pitch to a central drain or drains to facilitate cleaning and washing. The junction of the wall and floor should be coved. In the women's locker room, dressing booths should be supplied in the ratio of 10 percent of the total number of lockers. Hair dryers and nonbreakable liquid-soap dispensers are also recommended.

The use of galvanized-wire baskets or nylon or plastic bags is another option. This system will accommodate the same number of users in about one-quarter of the space required for metal lockers. However, there is no saving of space required for dressing. If there is a possibility of a swimming pool being constructed on this site at some future time, dressing rooms should be located and arranged so as to serve both the gymnasium and the pool.

d. Shower Rooms

The size of shower rooms is dependent upon the extent of the facilities and the number of persons to be served at one time. Adequate ventilation should be a primary consideration.

For men's facilities, it is suggested that approximately 12 shower heads be provided, spaced a minimum of 1.2metres apart and 1.8metres above the floor level. For women and girls, it is recommended that a minimum of 6 group shower heads and 3 individual shower-and-dressing booths be provided. Shower heads should be 2.0metres above the floor level. Nonbreakable liquid-soap dispensers are recommended, and hair dryers are suggested for the ladies' locker room.

To accommodate the disabled, two folding "L" seats should be placed in opposite comers of each group shower to facilitate both right-hand and left-hand approaches.

In the construction of the shower-room floor, drainage gutters 100mm deep and 200mm to 300mm wide placed around the perimeter of the shower room will provide a sanitary means of drainage. The central portion of the shower floor, raised above the depressed area, should drain toward the shower drains. A carborundum-impregnated ceramic tile, or its equal, will provide a nonslip surface.

The temperature of water feeding into the shower heads should be 30c, controlled by means of a mixing chamber rather than by individual control. Vandal proof shower heads should be used.

e. Lounge and Lobby

The lobby of the community recreation building is the space just inside the entrance. The lounge should open off the lobby, and, if possible, should be close to the central office and to the multipurpose room and/or social hall-gymnasium. The lounge and lobby are often combined into one room. When they are combined, it is suggested that the size of the lobby-lounge be about 180 to 240 square metres.

This facility should be attractively lighted and should contain a wall-mounted, recessed drinking fountain and a lighted trophy case and bulletin board. Appropriate space should be allowed for public telephones. Provision should also be made for aquariums and for growing plants and flowers. Adequate space, preferably recessed, and electrical and water connections for automatic vending machines should be included.

The office, club rooms, game room, and rest rooms are usually adjacent to the lobby-lounge.

f. Game Room

The game room, approximately 9.0 by 19.2metres in size, is designed for a variety of games, including billiards and table tennis. In planning this room, sufficient storage space should be provided for various items of game equipment and supplies to be used. This room should be in close proximity to office supervision. It should also be acoustically treated, due to the noise factor.

The choice of floor material should be carefully considered because of the heavy traffic usually prevalent in this room. Windows should be placed high in the walls to reduce glass breakage. A chair rail or wainscoting to prevent the marring of walls should be installed to a height of 75mm above the floor. Whenever possible, non contact (non-marring) furniture should be used.

1.1 PRELIMINARY ANALYSIS OF DATA

The data collected for the purpose of this study will now be summarized and presented in preliminary analysis, as discussed in Section 6.1.1.

A total of 600 copies of a questionnaire were administered to the respondents; while 567 were returned at the end. This implies a percentage questionnaire return,

$$\% \text{Questionnaire Return} = \frac{567}{600} \times 100\% = 94.5\%$$

1.1.1 Personal Characteristics of the Respondents

1.1.2 Sex and Age Groups

Table 1.1. Age Groups of the Respondents.

Age Group (Yrs)	Male	Female	Total	%
<20	33	9	42	7.41
20-29	84	21	105	18.52
30-39	273	42	315	55.56
40-49	21	42	63	11.11
50-59	17	4	21	3.70
60+	14	7	21	3.70
Total	442	125	567	
%	77.95	22.05		100.000

Source: Field Survey 2018

The display in table 1.1 has shown that the total sample of 567 respondents interviewed in this survey consists of 442 (about 77.95%) males and 125 (about 22.05%) females. The males dominated in the survey, and this may not be unconnected with the apathy most females have for subject matters not specifically related to the feminine gender.

Table 1.1 also reveals that people within the age bracket (30-39) years recorded the highest frequency of 315 or about 55.56 percent. This is followed by 105 (about 18.52%) respondents in the (20-29) years age group, then 63 (about 11.11%) respondents in the (40-49) age group, 42 (about 7.41) under-20-years respondents; while the age group (50-59) years and 60 years and above both recorded 21 (about 3.70%) respondents each. It would not be surprising that the ages (20-49) years have a combined high response rate of about 81.19% in the research, since this age range represents the time when most individuals are very active in life and would want to participate or be involved in issues around them. More so, people in this age bracket are seemed to be more enlightened.

The fact that the age group (50-59) years and 60 years and above both recorded the low responses with about 3.70% each may not be unrelated to the tendency of most people in this age bracket to shy away from research interviews. It is worthy of note here that the official retirement age in Nigeria Civil Service is put at 60 years; thus it is opined that the low percentage of people above this age category will have no significant effect on the findings of this research work.

1.1.3 Marital Status

Table 1.2. Marital Status of Respondents.

Marital Status	Frequency	%
Single	247	43.56
Married	282	49.74
Divorced	13	2.29
Widowed	19	3.35
Separated	6	1.06
Total	567	100.00

Source: Field Survey 2018

Table 1.2 show that 282 (about 49.74%) of the respondents in this survey are married, 247 (about 43.56%) are single, while 19 (about 3.35%), 13 (about 2.29%), and 6 (about 1.06%) of the respondents are widowed, divorced, and separated, respectively. This implies that the singles are showing keen interest in the participation of the issue at stake.

1.1.4 Household Size

Source: Field Survey 2018

The family size of six persons and above per household recorded the highest frequency of 253 (about 44.62%) as is evident in table 6.3: This is followed by 101 (about 17.81%) and 91 (about 16.05%) cases for five (5) and four (4) persons per household, respectively. One (1), two (2), and three (3) persons per household, each

Table 1.3. Household Size of Respondents.

Household Size	Frequency	%
1 person	31	5.47
2 persons	33	5.82
3 persons	50	8.82
4 persons	91	16.05
5 persons	101	17.81
6, and above	253	44.62
No response	8	1.41
Total	567	100.00

1.1.5 Demand for Passive Recreations

Table 1.4. Demand for Passive Recreations.

Type	Frequency	%
Picnicking & Strolling	259	45.68
Jogging & Biking	110	19.40
Masquerading & Dancing	114	20.11
Playing Draft & Traditional Ayo game	52	9.17
Others	25	4.41
No response	7	1.23
Total	567	100.00

Source: Field Survey 2018

1.1.6 Demand for Active Recreations

Table 1.5. Demand for Active Recreations.

Type	Frequency	%
Ball-related games	271	47.80
Tennis/Badminton	79	13.93
Swimming	138	24.34
Roller-skating	41	7.23
Others	32	5.64
No response	6	1.06
Total	567	100.00

Source: Field Survey 2018

1.1.7 Preference to Types of Park Architecture

Table 1.6. preference to types of Park Architecture.

Park Architecture	Frequency	%
Outdoor	227	40.04
Indoor	184	32.45
A blend of both	151	26.63
No response	5	0.88
Total	567	100.00

Source: Field Survey 2018

RECOMMENDATION

- The most optimum use of the entire area should be determined and utilization of the natural resources by establishing appropriate ratio of outdoor to indoor facilities.
- The design should be flexible and organic in use and for future expansion.
- Should be designed to ensure opportunity for its use by all members of the community including the ageing and disabled.
- Designed to encompass accepted aesthetic qualities that relate harmoniously with its environment.

CONCLUSION

Open space recreation has a vital role to play in promoting healthy living and preventing illness. It also enhances social development of citizens through play, sporting activities and interaction with others. To ensure effective planning for open space recreation it is essential that needs of the local communities are known through robust assessments of the existing and future needs of their communities for a successful and quality open space recreation.

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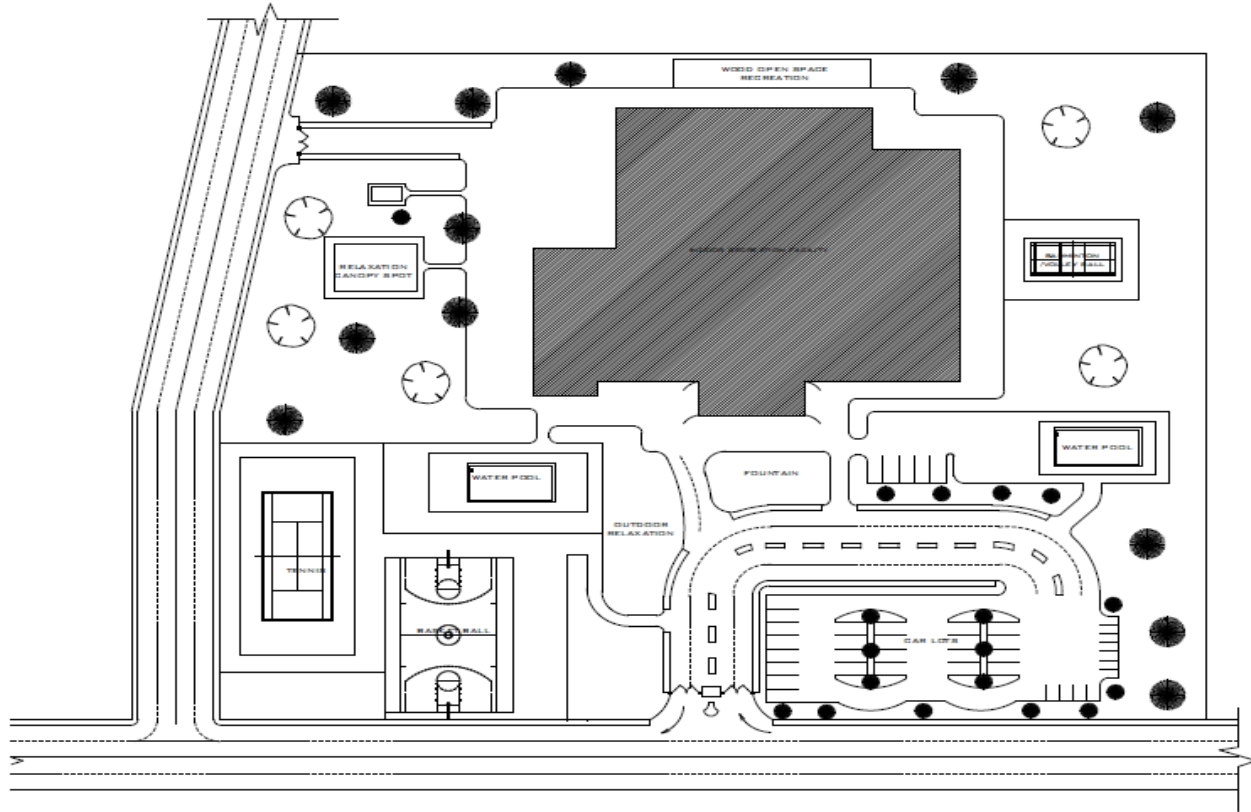


Figure 1

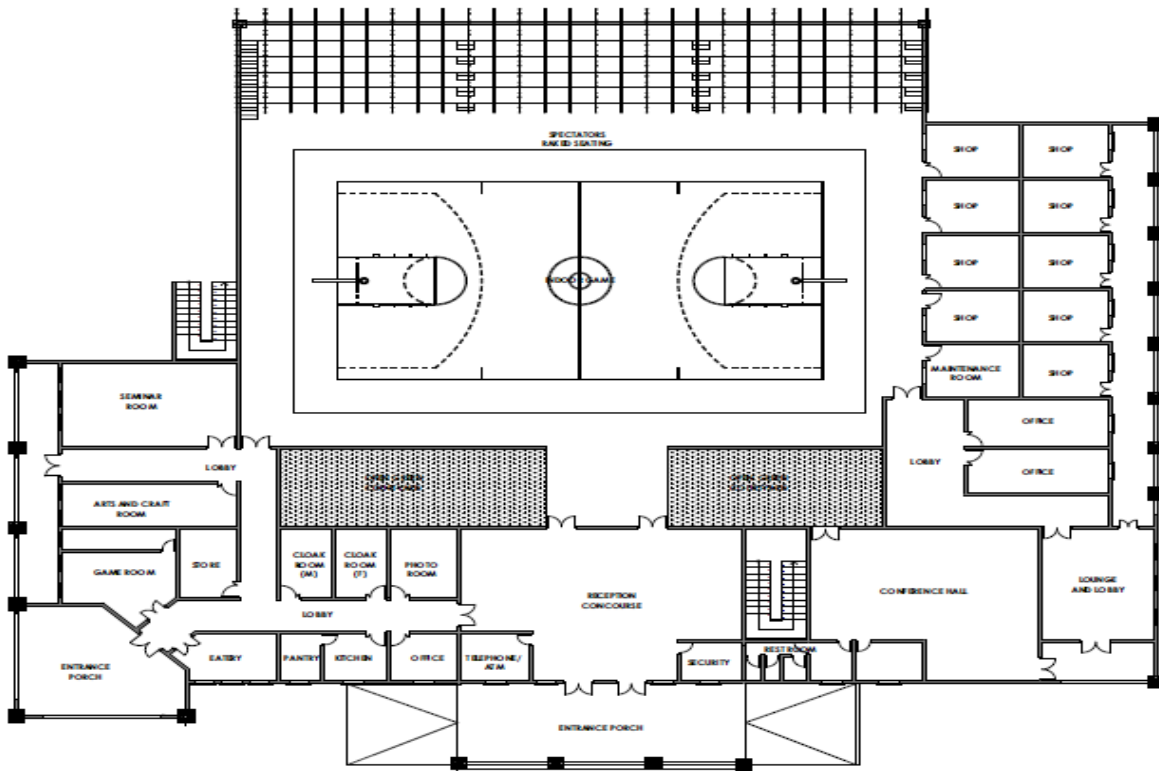


Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7