



UNDERSTANDING THE CONCEPT, PRINCIPLES AND STANDARDS OF LANDSCAPING AND LANDSCAPE DESIGN

¹PUNYI PETER; ¹JAMES JEFFERY WILLIAMS;
& ²LAWAL KABIR TUNAU

¹Department of Geography, Adamawa State College
of Education, Hong, Hong, Adamawa State.

²Department of Urban and Regional Planning,
School of Environmental Science Technology,
Federal Polytechnic, Mubi Adamawa State – Nigeria.

ABSTRACT

Landscape comprises visible features of an area of land, including the physical element of landform such as mountains, hills, water bodies such as river, lakes ponds and sea, living elements of land cover including indigenous vegetation, human element including different form of land uses, building and structures, and transitory elements such as

Introduction

Landscaping is the art and science of developing the outdoor environment using soft landscaping, e.g. Ornamental plants, and hard landscape, e.g. Non plant object, component to serve the need and desires of people. It serves both the aesthetic and functional purpose. The outdoor surroundings could be designed with and man-made component/object! materials i.e. it could be natural or artificial landscaping which involves design, construction and maintenance of landscapes.

Landscape comprises visible features of an area of land, including the physical element of landform such as (ice-capped) mountains, hills, water bodies such as river, lakes ponds and sea, living element of land cover including indigenous vegetation, human element including different form of land



lighting and weather conditions. This paper attempts to examine the concept, principles and standards of landscaping, landscape design, historical background of the landscaping, the elements of landscape as well as the types of landscaping. Data collection was carried out through literature review. The study discusses scope and historical sketches of landscape, history, elements of landscaping and principles of landscape design. Finally, the study concludes that from various issues discussed, it is advisable that the issue of landscaping in all residential, institutional, commercial areas etc should be addressed adequately so as to enhance quality of the environment for liveability, aesthetics and learning.

Keywords: *Concept, elements, principles, standards, landscaping, landscape design*

uses, building and structures, and transitory elements such as lighting and weather conditions.

Landscape is cultural image, a pictorial way of representing, structuring or symbolizing, “meaning combined the physical and the physiological. “landscape refers to an activity that modifies the visible features of an area of land, including the physical elements of land cover, human elements including different forms of land use, building and transitory elements such as lighting and water condition.

Therefore, this paper is to examine the concept, principles and standards of landscaping and landscape design in the urban context as basis to understanding the activities of landscapers at the site level.

CONCEPT, PRICIPLES AND STANDARDS OF LANDSCAPE AND LANDSCAPING

LANDSCAPE

The term landscape refers to the geographical representation of the earth surface. It is a visual perception of space or an expanse of natural scenery seen in one view. Elizebeth etal (2001) opine that the landscape



has both firm and exclusive meaning thus he defines landscape as cultural concepts, a sensory response, learned and recalled by individual as places himself in his environment. Boulden (2004) described landscape as a generic term conveying the totality of view, weather of the country or town, in a given area. According to Encarta encyclopedia, landscape is an expanse of scenery of a particular type, especially as much as can be seen by the eye. Landscape as defined by UNESCO is the result of the interaction of the natural environment and human activities. The landscape of a place is not static in nature that is it does not remain the same forever, but it is shaped by activities of successive human generations.

LANDSCAPING

Landscaping evolves from the word “landscape”. It is the process that produces the landscape of an area. It involves the combination or interplay of natural and human processes. Landscaping denotes the process of shaping, modifying and creating outdoor scenes ordered to effectively express the functional and supportive attributes of the public domain within the urban environment. Public domain here means the collective shared space within which most of the day-to-day experience occurs in an urban environment and includes parks, streets, markets, playgrounds and other open spaces among others. Landscaping is also defined as the enhancement of the appearance of land, especially around buildings, by altering its contours and planting trees, shrubs, and flowers. From Wikipedia, Landscaping refers to any activity that modifies the visible features of an area of land, including living elements, such as flora or fauna; or what is commonly referred to as gardening, the art and craft of growing plants with a goal of creating a beautiful environment within the landscape; natural elements such as landform, terrain shape, and elevation, or bodies of water, human elements such as structures, buildings, fences, or other material objects created and/or installed by humans. And abstract elements such as the weather and lighting conditions. Akao (1990) stated that landscaping is man’s effort aimed at upgrading the quality of the environment to achieve some degree of



naturalness and delight with the environment, allowing for the harmony in the mind and body.

Landscaping is both science and art, and requires good observation and design skills. A good landscaper understands the elements of natural and construction and blends them accordingly.

TYPES OF LANDSCAPING

NATURAL LANDSCAPING: A landscape that is unaffected by human activities. It may contain component that are living or non-living or even both. A Natural landscape remains intact if the living and non-living of the environment are free to move and change. Today no place on earth is unaffected with by human activities. Thus landscape tends to varies in their degree of naturalness. Therefore, classification has been made in to four types:

A natural landscape is one that is unaffected by human activity.

> A sub-natural is one where if human activity was removed it would go back to normal state.

> A semi natural landscape is the one that has been drastically modified by human activity but have some natural element intact.

An agricultural landscape is one that has been totally altered and arranged by human activity very little naturalness is left. Examples of natural landscape in Nigeria are; natural surroundings such as forest or desert, rocks (Olumo rock, zuma rock) Erin Ijasa water fall Ikogusi warm/cold spring, plateau in Jos, Mambila Taraba etc.

MAN-MADE LANDSCAPE: the use of artificially made plants (synthetic or otherwise) for landscaping of outdoor environment. Nowadays, it is common to see large quantities of artificial plants (trees, palm, lawns) being using for landscaping. Though, it will not and cannot replace the natural plants in their effects and function on the landscape, but could also add to the beauty of the environment. It has the advantage of low maintenance in terms of watering, fertilizer application, mowing in case of lawns and turfs, trimming/pruning and so on. Other items in artificial designs includes the use of art works like Sculpture (UNAAB Olumo model), concrete benches and tables, water bodies such as water fountains, artificial spring etc.



SCOPE AND HISTORICAL SKETCHES OF LANDSCAPE

Landscape by its very nature encompasses all other specialist section of amenity horticulture in one form or the other. It includes the design, construction, maintenance and management of landscape features. Knowledge of horticulture, landscape architecture, and engineering are usually important.

HISTORY

Landscaping is an important sector which has expanded and still expanding in recent years in Nigeria. Despite the development, it is by no means comparable to what is obtainable in the developed countries in terms of horticulture industry. People have design garden throughout the recorded history Alibi (2009). Thousand years ago in Egypt and Babylon, there were planted tradition of antiquity, spatially those of ancient Rome. To self-conscious revival of the idea of Vitruvius and Pliny, there was added the influence of Islamic world and medieval theory and practice. These use of water and fountain and organization of garden in geometric quarters were part of wide inheritance.

In Nigeria, from the time immemorial, people consciously or unconsciously added physiographic and environmental characteristics to the land around them either for aesthetic gratification or environmental enrichment and protection

According to Carder (2008) Traditionally, people keep garden and trees around their buildings. Though, the experience of the colonial era did little to influence creation and preservation of beauty in the surroundings at it was in Francophone countries. Nevertheless, the inception of colonialism changed the trends of event as concert effort were made to formally landscape some public buildings, government reservation areas (GRAs), institutions of higher learning, and sport field which marked the beginning of organized! formal landscaping in Nigeria. Missionaries (Christian) also established plants in churches and schools. Some individual copied this idea and planted some ornamental plant in their surroundings

Nowadays landscaping business is fashionable and there is influx of all sort of landscaping in the profession, having seen it as an avenue to make



quick money. There is generally, limited concern for landscape planning and management in Nigeria, most importantly from government with the exception of the few state governments, who recently seem to brace up to the challenges of creating a beautiful and welcoming environment.

PRINCIPLES OF LANDSCAPE DESIGN

Landscape Design is the coordinated and sustainable use of plant life and materials to create a functional, easy-to-manage outdoor environment in which to live, work, and play. It combines the use of principles of design, ecology, budgeting and finance, construction, and psychology to create a pleasing outdoor space that serve as a buffer between civilization and natural world. Landscape design is an independent profession and a design and art tradition, practice by landscape designers, combining nature and culture (Wikipedia)

The goal in developing a landscape plan is to design a plan that will achieve unity and harmony. The principles of landscape design are the building blocks used by designer to create beautiful and functional landscapes. Landscape design principles are the same for all type of landscapes. They are in many different preferences. Similar to elements of arts, these principles represent the primary required precise adherence, but instead reflect a framework of universal concepts that prove effective in creating designs.

The following principles should be considered when designing landscape

1. Repetition and Rhythm: these are created by the repeated use of elements or feature to create pattern or a sequence in the landscape. Repeating line, form, colour and texture creates rhythm in the landscape. Repetition must be used with care, too much repetition can create monotony, and too little can create confusion. Simple repetition is the use of the same object in a line or the grouping of a geometric form such as a square, in an organized pattern



Fig. 1: Rhythm



2. Proportion and scale: Relative proportion is the size of an object. Scale is the human perception of the size of space and related to the human scale (the size of the human body) because the size of other objects considered relative to humans. Plant materials, gardens structure, and ornamental should be considered relative to human scale. Other important relative proportions include the size of house, yard and the area to be planted. For example, plant tall trees near a tall, narrow house or building. A small house surrounded by large trees appears smaller than it actually is a large house surrounded by small trees appears larger than it actually is. A design is in proper proportion and scale when a pleasing relationship exists among and between each component and the design as a whole.

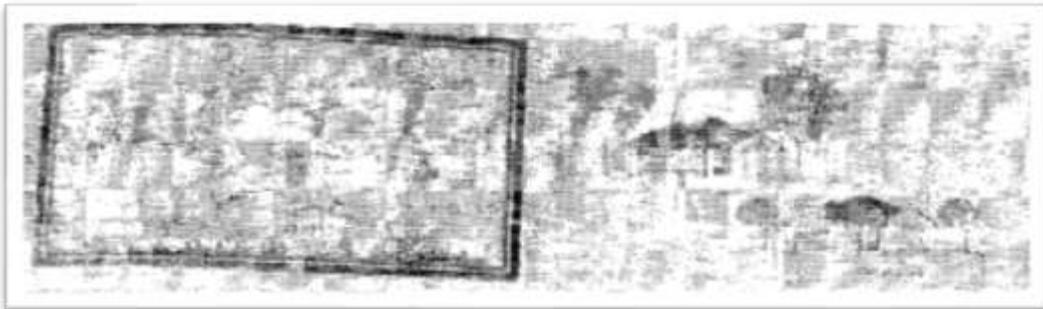


Fig.2: Proportion in plant and hard landscape

Order and Balance.

Order generally referred to as the spatial layout or organization of the design and most often achieved through balance. Balance is the concept of equal visual attraction and weight, usually around a real or imaginary central axis. Form, colour, size, and texture all affect balance. Balance can be symmetrical, asymmetrical, or perspective. Order can also achieve by massing features or elements into distinct groups and arranging them around a central point.

I. Symmetrical is achieved when the same object (mirror image) are placed in either size of an axis.

II. Asymmetrical balance is achieved by equal visual weight of non-equivalent forms, colour, or texture on either size of an axis. This type of balance is informal and is usually achieved by masses of plants that appear to be the same in visual weight rather than total mass.



III. Perspective balance is concerned with the balance of foreground, mid ground and background. When looking at a composition, the objects in front have greater visual weight because they are closer to the viewer. This can be balanced, if desired, by using larger objects, brighter colour, or coarse texture in the background. In most cases, either the foreground or background should be dominant.

4. Unity: is achieved by linking element and features to create a consistent character in the composition. Unity is sometimes referred to as harmony-the concept of everything fitting together. By comparison, scattered groupings of plant and unrelated garden ornament are the opposite of unity. Unity is achieved by using dominance, interconnection, unity of three and simplicity to arrange colours, texture and form. Although hard landscape and plants can be unified by blending of similar characteristics, some variety is also important to create interest. In an area of buildings, the colour and textures of matured trees and shrubs tend to lessen the contrast between buildings and visually unify the total composition an area.

5. Focalization: It involves the leading of visual observation toward a feature by placement of this feature at the vanishing point between radial or approaching lines. Straight radial lines create strong focalization when compare to curve lines.

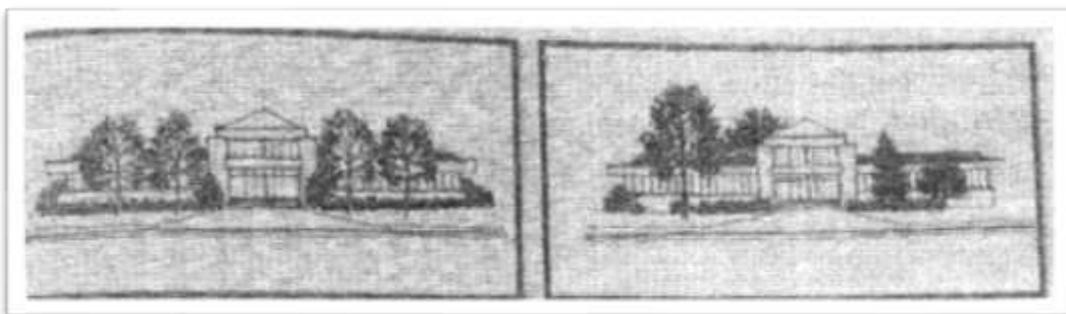


Fig.3: Symmetrical plantings

6. Simplicity: simplicity goes hand-in-hand with the repetition and can be achieved elimination of unnecessary detail. Too much variety or detail creates confusion of perception. Simplicity is the reduction of design to its simplest, functional form, which avoid unnecessary cost and maintenance.



ELEMENTS OF LANDSCAPING

Landscape can be classified in to two, namely: the hard and soft landscape elements.

Hard landscape elements

These elements consist of both man -made and natural features that form a vital part of the landscape. They cannot be easily modified or altered except with modern high technology, which are usually intensive in nature. As such are usually incorporated in to the design. They include rock, soil, roads, and parkways, parking and driveways.

a. Rocks

Rocks are major features in some region, minor in some and non-existence in others. It varies in size, from sand or pebbles, to fixed outcrop. Rocks that are

Indigenous to site can be use as outcrop, boundaries or edges as well as sculptural element. Rocks as landscape element can be integrated in to the landscape design of residential estate as an integral part and designated for recreational activities.

b. Soil

Soil is the floor of landscape space, the medium of plants food exchange, the base for structure, the vehicle of the conveyance of surface and sub surface of drainage of excess water and sculpture materials. Soil is a very important element of landscape, as it forms the space on which most, if not all the planting and erection of structure of landscape are carried on.

c. Road and pathways

These consist of major access across the landscape and include vehicular route and pedestrian movement tracks. In landscaping the existing access should be taking into consideration, as they reflect the preferred direction of movement and people will usually tend to move in the direction of the shortest distance possible.

d. Parking and driveways

These are the lot for vehicular parking, which in some places are plan and organized with asphalt, or hard surface material. In residential area most of these are unorganized and located inside the com pound.



Soft Landscape Elements

These are elements that can easily be modified or change to desire pattern. They mostly consist of natural features which include plants community (trees, flowers, shrubs) water bodies, etc.

Plants

These are the vegetation cover of an area, they also considered as skin of the earth's surface. They are the primary materials of gardens. Plants are categorized in to trees, flowers, shrubs and grasses. This classification is either done base on their size, colour, forms, texture fragrance, growth rate and resistance to drought and diseases. In landscape, the following criteria are use in selecting plants.

- a) The purpose which they are to be used for.
- b) The edaphic condition (soil requirement)
- c) The drought resistance of such plants.
- d) Seasonality of the plants.
- e) Availability and local preference.
- f) Cost of maintenance.

Water bodies

Water is most flexible of all natural elements; it assumed the shape of its container. Water bodies serves as the regulator of the surrounding temperature. Most of the water bodies used in landscaping can easily be modified; they include rivers, streams, ponds etc. Although large water bodies are usually difficult to alter, these elements can be used for different purposes, like the construction of fountains, and swimming pools.

CONCLUSION

This paper has attempted to examine the concept, principles and standards of landscaping, and landscape design and historical background of the landscaping, the elements of landscape as well as the types of landscaping.

However, from various issue discussed, it is advisably that all residential, open space and perhaps institutions should address the issue of



landscaping adequately so as to enhance conducive environment for liveability, aesthetics and learning.

REFERENCE

- Akao Y. (1990). Quality function development: Integrating Customers Requirement in to Product Design, Productivity Press.
- Alibi, M. O (2009) Urban Public Open Space through vegetative Enclaves in Lokoja Nigeria.
- Boulden, Steve, 2004.” The basic Principle Of landscape Design” The Landscape Design Site
- Bowles Wyr. Home outside design .com. Retrieved 2016-05-17
- Colorado Master Gardener Program. (1995). “Water Wise Landscaping: Principles Of Landscape Design.
- Carder, W. (2008), Beyond the view of changing Landscape. Encarta press
- Clark, K. landscape into Art John Murray London 1976.
- Dober, R.P. (1992). Landscape design. New York, John Wiley & Sons.
- Elizebeth Barlaw Roger Landscape Design: A cultural and Architectural history. Harry N. Abrams (2001).
- Haunyang Landscape Space planning and Design using QFD.
- Landscape planning: “An introduction to landscape, architecture” Pitman, Nairobi, Kenya.
- Summer 2008 Landscape land use planning Newsletter.