

TRANSCENDING TIME

by Rita Chelagat Kinuthia

INTRODUCTION

The purpose of this essay is to explore and extract the principles and methods that governed in the construction of Indigenous African architecture to aid as an inspiration for my project. This essay also investigates rituals, ceremonies, divinations around building, music and light. All pieces to a puzzle.

If light was invented in Africa what would it look like?

Diving into qualities of light. Seeing it from a perspective of a time such as then (the past), where design was mainly influenced and inspired by necessity, nature and their bodily features. Light in the present time but with a twist and borrowing from the aesthetic and sentimental feel of the past. The sunset is used as a metaphor to signify death in the short story ‘ When the sun goes down’ (Kamau, 2010) by Goro wa Kamau

The myth of darkest Africa is persistent and there are still many people who find it difficult to accept that the traditional buildings of the continent merit more. One only has to consider for a moment the vocabulary used to refer to them (including such basic words as 'mud' and 'hut', which in English have such derogatory overtones) to realise that even for those who know and respect other aspects of African culture it is hard to avoid being drawn into a web of selective and distorted perception. Mud is an excellent cooling agent. Elephants spray mud on themselves as sun protection during the dry seasons. The modern shanty buildings which so often line the roads to airports and urban centres merely serve to confirm ideas about temporary makeshift 'shelters'; and even people who venture out into the countryside find rough buildings along roads and railways. Apparently traditional villages close to roads are often of fairly recent origin, and the larger ones also attract to their centres immigrant traders whose requirements and obligations are quite different from those of the indigenous communities. Sensational modern accounts of 'underdevelopment' can also paradoxically serve to reinforce earlier stereotypes of darkest Africa and its 'primitive' material culture (Denyer, 1978). Some early foreign visitors to the continent saw things in a different way, Africa is an Opportunity more than a problem.

African architecture is exceptionally diverse, with buildings and techniques reflecting available materials and skill sets.

Building, not to take away from the environment but to blend in, using the most readily available materials and sustainable to the environment.



Figure 1 Sankofa symbol (Ghanian) meaning return and get it, learn from the past.

LIGHT

Light drives away darkness, but creates shadows in the process, and these shadows in turn frame the pools of light. Darkness is never far away. Homo sapiens sapiens became homo faber, and one of his ancestors' early works was to make light in the form of fire. Human vision, honed over millions of years without artificial light, was now subject to extended periods of use, and this fire-light made Homo-faber the most dominant species on earth - to the point where Homo faber threatens the survival of all other life. I believe that the history of architecture is the story of the way light enters into buildings and reveals the spatial composition and forms within. (Brandi, 2001)

Light is the material of architecture through which we can best appreciate the nature of space, surface, colours and objects. Textures are perhaps felt as much through the eyes as through the skin. When we left the cave, we constructed our own walls and a roof. We saw for the first time our walls from the outside as well as the inside. We made openings in them and the roof to let the daylight in. Later we put glass in these openings to keep out the rain. Throughout all this time we decorated our solid walls with signs of our changing culture, and used sunlight to illuminate the glass walls. We lived by the diurnal and seasonal rhythms of temperature and light. We moved from fire to oil lamps over a very long period, and then, in the 19th century the electric lamp arrived, and with Mr Edison, the system to light the world. In the same century we dismantled the walls upon which we inscribed our culture and made them and the roof entirely of glass, held (Brandi, 2001).

If light was invented in africa what would it look like?

Artificial light wasn't a necessity at the time so it is wrong to assume that they need it. Night time was night time. I admire the simplicity of that life then, they eased into life so effortlessly unlike the present time where often we are under a lot of pressure and stress. The struggle has gone beyond basic needs into more greed fueled by social pressure. Not to devalue the strides that have and are being taken to imagine a new possibility and advance for the greater good. Thank God for modern medicine! But this doesn't stop us from dreaming and imagining.

*"Life Is like a dream, so that one wonders whether it's
in living that we dream or in dreaming that we live."*

African proverb

Light was used to indicate time of day in spatial spaces as it is now. Looking to the past with present eyes what would light look like? In the context of a rural home taking up the ethos of african design purpose, everything had a purpose.

AFRICAN TRADITIONAL ARCHITECTURE

Exploring a series of studies of housing environment produced by the physical form, traditional building techniques and constructional methods of housing in all the rural areas across Africa, related to the culture and living habits of the relevant ethnic groups, the climatic conditions and physical environment.

It reveals a cultural heritage of sophistication and ecological balance that has too long been ignored by the majority of architects and professionals working in Africa who have prescribed expensive and alien solutions in the rural areas, based on the use of prestigious, modern materials and techniques.

Let us hope that they will have the humility and sympathy to study the ways in which rural Kenyans have for generations provided their own housing, using materials directly from their environment, before prescribing the new solutions which will inevitably be required as agricultural methods change and more amenities are acquired. Vernacular housing methods has coincided with a growing realisation that modern architectural design in its enthusiasm for innovation has too often ignored the social and environmental disadvantages of technology.

The study of traditional forms and methods is now seen to be a first step towards the new generation of housing forms which will hopefully embody the lessons of integration of man, activity, and environment so well demonstrated by Andersen (Andersen, 1977) and the examples, the maximum use of renewable materials for economic reasons (now particularly relevant because of the recent energy crisis and resultant steeply rising costs of fuel and industrial raw materials), the improvement of traditional methods to reduce the amount of regular maintenance needed for the longer life of buildings and the controlled and rational use of modern materials only when they can contribute to a saving in maintenance costs and an improvement in living conditions and health standards.



Figure 2 The earthen architecture of Timbuktu, along niger river Mali.

Image by Michel Renaudeau

Timbuktu Architecture was formed from bricks and plastered by mud with large wooden log support beams that jut out from the wall face for the purpose of renovation and scaffolding. (Styles, n.d.)

AFRICAN NOMADIC DESIGN

In her pioneering work, *African Nomadic Architecture: Space, Place, and Gender*, Prussin (Prussin, 1995) gave an entirely new language to materials that had previously been limited to the diminutive domain of domestic crafts. She also championed women as the builders of the most important element of daily life: the nomadic home, which was the key to survival in the desert. Her insistence on a “nomadic aesthetic” defined by collective creativity and poetic balance struck between the infinite expanse of the desert and the comforting enclosure of the tent, is an aesthetic formulated by women. (Majeed, 2017)



Figure 3 Rendille woman unties the armature of her tent.

Photo by Amyas Naegele, Marsabit, Kenya, 2013

Her terminology emphasizes the role of women as designers and engineers conditioned by their peripatetic existence to solve problems generated by the desert environment and its limited resources. Women were the primary occupants of the tent, and the spaces that they designed were naturally tailored to their own needs. The domestic space of the tent was the key to the family's survival in the harsh desert landscape and that key was firmly in the grasp of the women. (Majeed, 2017)

In all nomadic communities women were intimately related to the tent. In Tuareg culture, the word for “tent” and the word for “marriage” are the same because a tent came into being as the future home of a newly married woman. Marriage was a contractual transaction that carried the expectation of starting a family in a tent. As etymology suggests, the woman's skill as the architect of the tent was conflated with her reproductive ability.



Figure 4 Armature of a Rendille Tent. The frame of the armature in the process of assembly. Note the sturdy straight poles of the lean-to entrance which are not buried but rest directly on the ground. The woman on the bottom right is securing these with rocks. Photo by Anders Grum, Keenya, 1975

In both Tuareg and Gabra cultures, a mother used elements of her tent to construct her daughter's nuptial tent. Over time her tent continued to shrink in size paradoxically announcing her enviable status as the mother of many married daughters. The physical integration of a portion of her home into her daughter's is a visualisation of the mnemonics of nomadic architecture which were transmitted from mothers to daughters on a regular basis since the tent was raised and struck as often as every few days. The art of memory is reliant on repetition and modularity, which is itself based on the incremental replication of a unit. Rendille tents use concentric arcs tied together with a single rope running the circumference of the perimeter; their basketry cradles used to protect containers are assembled in the same way and all the tents of the community are also arranged in concentric circles.

From a very young age, girls helped their mothers with the assembly of the household and this learning was further reinforced through toys. Little Gabra girls emulated their mother's occupations as architects by assembling and packing miniaturised versions of tents. Reiteration of form and technique imprints the method of assembly on the mind in a tactile manner.



Figure 5 Three generations of Rendille women attaching mats to the tent armature.

Photo by Anders Grum, Kenya 1975

Tents are a type of architecture whose permanence and stability are inscribed in the process of their construction rather than in the final structure. A tent perished with the last member of the

family it protected and its parts were absorbed into other tents. A new one was made for a new marriage. For this reason, attempts to trace a linear development, or even a genealogy of nomadic architecture, is at odds with the principles of its production even though tents represent solutions to environmental conditions that were achieved centuries ago. (Majeed, 2017)

SOUTH AFRICAN ARCHITECTURE

Traditional huts in Southern Africa are expertly thatched, for example, with simple grass gathered from the surrounding areas weaved together so tightly that it can withstand the elements. Some Nguni houses even include thatching with insulation in order to regulate internal temperatures. In nearby Malawi, resilient frames made out of reeds, wood or bamboo are reinforced with mud, while other communities create strong bricks from compressed and dried mud. (Thompson, 2018)



Figure 6 Traditional Zulu house photographed in 1979

Image by John Atherton



Figure 7 Ndebele women in Botshabelo Village

Image by Michel Huet

The Ndebele of South Africa paint their houses with designs that are inspired by natural themes such as trees, plants, and flowers. Others depict modern motifs razor blades.

SWAHILI ARCHITECTURE

The use of coral stone into masonry walls with a mortar of lime, sand, and red soil protects the interiors of the house from the coastal heat. For the construction of roofs, mangroves poles were used another remarkable characteristic of Swahili Architecture. These domestic stone houses are often associated with open spaces, formed by walled courtyards or compounds with other buildings.

Swahili houses were oriented towards the North, this provides protection from the sun and also reflects the common practice of orienting houses toward the Qibla (Sacred shrine in Mecca, Saudi Arabia). All houses were constructed of coral limestone that was the ideal building material: light, strong, and readily available. Internally the houses were designed around a self-contained central courtyard. The courtyard is the spatial nucleus of the house for daytime activities and family gatherings. The exterior of the house has massive and imposing doorways with arched openings. These arched openings carry carved Arabic inscriptions like quotes from the Quran. The detailed ornamentation of the doorways is a major element that expresses Swahili Architecture. The ornately carved doors seek influence from the Middle East and Indian subcontinent. (ARCHITECTURAL STYLES, n.d.)

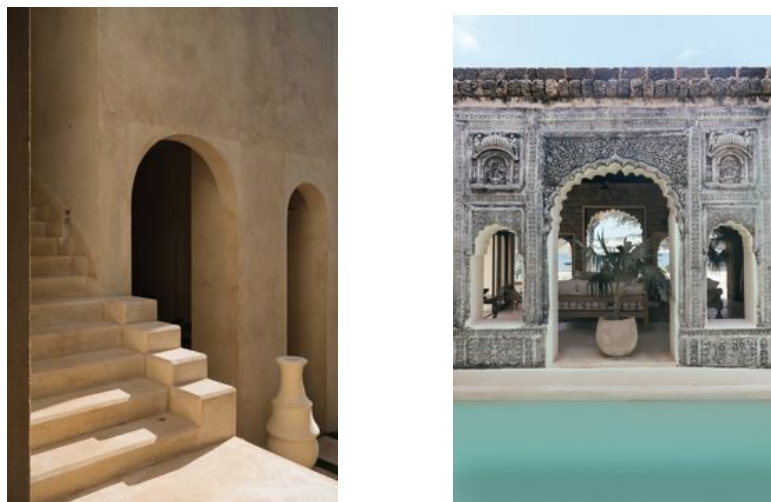


Figure 8 Lamu architecture

Images from pinterest

Hausa

Until quite recently, Hausa wall decoration was an integral part of the building process. It was usually the work of the general builder and was carried out during the last phase of construction when the final coat of plaster was applied. The indigenous materials for construction in Hausa land involve four major materials namely: earth, timber, reeds, grasses, and stones.

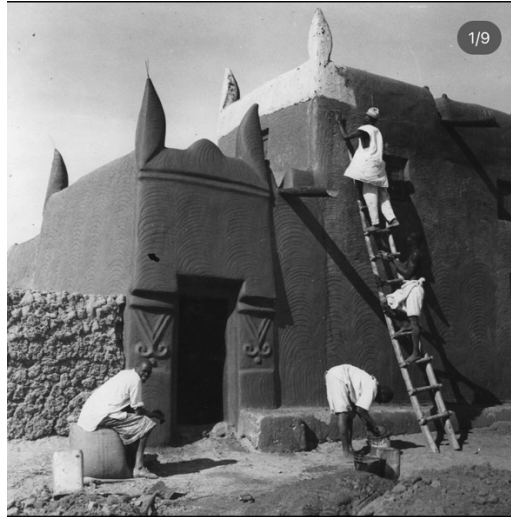


Figure 9 Hausa wall building process

Image by melanated facts Instagram

The construction involved pear-shaped sun dried mud bricks that are moulded from the red laterite soil found around the neighbourhood. The laterite soil has high fibre content, when skilfully mould, produces excellent materials for buildings' walls and roofs. Also, moulding the mud walls bricks involves mixing the laterite soil with water thoroughly. When properly dried are then laid in regular courses with points facing upwards. Egg shaped units of Adobe ("Tubali") which has been earth-plastered, are put together to create buildings given a monolithic appearance buttressed. In the construction, the roofs structures in this zone are formed with small door space with little or no window openings which are usually achieved with the intention to eliminate the hot, dry and dusty air. The prevention is also applicable to bright daylight and entry of air at night. Similarly, the location and small size of the window helps in curtailing the incursion of dust and flies. The oldest sort of house decoration in Hausaland is made by repetitive mechanical hand movements on the newly-plastered surfaces of walls. This decoration is used on the least important walls which are usually finished with a mixture of dung and laterite. Before it is dry, the fingers of one hand are moved along it in long, sweeping gestures to create a pattern of parallel lines. A similar form of mechanical decoration is applied when makuba is used as a wall finish. This is also made by rhythmic movements of the arm, using the side of the hand to produce a series of shallow, semi-circular troughs. Both methods give an overall pattern which in the strong sunlight enhances a building with a lovely pattern and texture. (Facts, n.d.)

Mauritania

One of the most remote towns in Mauritania, Oualata (sometimes spelled Walata) owes its glamour to the amazingly beautiful bas-relief ornamentation of its house walls. The decorations, of gypsum, white and red clay, and indigo, are designed and applied by the women, and although they're personal works, they share certain motifs and a thoroughgoing exuberance. Inside the houses, the effects created can be stunning, the doors are highly stylized as well, the best ones studded with copper and silver.

The town's origins go back to the eleventh century, to the heyday of the Ghana Empire, when this settlement was a Soninké town called Birou. It was destroyed in 1076 by the Almoravids, then refounded in 1224 by zenata merchants fleeing from Koumbi Saleh. It rose to a fame equal to that of Timbuktu and Djenné, and features in medieval European maps of Africa. decorated with a relief motif of applied gypsum white and red clay. Children framed in open doorway with white surround. The town faded with the decline in the great trans-Saharan commerce at the end of the seventeenth century, but it has kept its worldwide eminence as a centre of Islamic scholarship, the basis of long-term rivalry with Timbuktu.



Figure 10 Mauritania wall ornamentation

Image by melanated facts instagram

The red walls of the ksar of Oualata stand on a cliff, dominating the dry, dusty landscape. The buildings are in a rather austere style. In the fourteenth century, Oualata was the empire of Mali's earliest customs post. The town enjoyed its greatest wealth in the sixteenth century. The streets are narrow, and twist and turn between the houses. The design of these homes is extremely well adapted to the local climate, and makes best use of the available building materials. This explains why attempts to modernize the local architectural style were generally doomed to failure, since they did not take these factors into account. (facts, n.d.)

MUSIC AND RITUALS

"If you see a stranger without baggage, He is carrying it in his heart."
Minyanka Proverb

The lively music and dance takes many forms/ shapes. Music is and was a vital form of self-expression for people. (Ondieki, 2014)

Everything revolves around music. African peoples "experience sickness and healing through rituals of consciousness transformation whose experiential core is music" (Friedson 1996, xi).

Drums were used as ritual means to the ancestors, signal for war, decoration, an instrument for music to soothe their minds and healing. The language they speak has the vocal language of the drums, the ancient language of drumming. Drumming was linked to the actual language. The language that they speak has drum rhythms inside the vocal arrangement of the language. Medicine comes from music

Healing drum traditions of Africa ("Africa" here includes the Diaspora). Drum music in African traditions has always been a form of alternative medicine, perhaps the oldest form of alternative medicine, long predating the concept of "doctors as separate from the fabric of everyday life and activity". Drumming in the African tradition has within it rhythmic concepts that sync directly with the body's electrical system, nervous system, and psyche and help to balance and rejuvenate these systems while speaking directly to the organs and energy centres of the body. Drumming at its most basic analysis is heartbeat and pulse strengthening music, but at a closer look much more is revealed, and it may be the most advanced medicinal system known to humankind. Countless rhythms in African traditions have been used for centuries for their known healing effect. - Kevin Nathaniel, Heritage OP.

Like in other parts of Africa, the people of Kenya have practised their music through purposeful singing, instrumental performance, and dancing for many millennia In the pre-colonial period, calls, call-response devices, rhythmic intensity, vocables and other oral declamations, interjections and punctuations, constant repetition of rhythmic and melodic gures and phrases, hand-clapping, foot-patting, and metronomic pulses were the raw materials that made up a typical Kenyan musical event particular to a given cultural community In traditional music and dance, instruments usually played special roles such as providing prelude and interlude, cueing, embellishing and accompanying voices marking the start and ending of a musical performance Some instruments added texture, rhythmic intensity and color while others generally enhanced the mood and spirit of the day Zilizopendwa: The Ramifications for Development and Revival. Generally, lyrics are narrative and react poetic devices such as repetition, simile, personication, allegory, rhyme, metaphor,alliteration, proverbs and sayings. (Otoyo, 2014)

DRUMMING

Drums were once played in every facet of African culture (beliefs, practices, religion, identity, dress and consumption practices or food). They were and are still used for communication in African communities to send messages over long distances.

The language of the drum is a sensitive one, and long messages, poems and clan praises can be beaten out. Messages on the drum beat can be multilingual and can require a drummer to be schooled in different codes and languages. African languages and dialects are tonal, and the tone of a word – high or low- determines its meaning. In contrast, drums have only one tone and volume as variables, therefore they cannot produce word for word imitations of speech through sound. The drum beats or texts contain a set series of beats used as phrases, and listeners who know the codes and languages recognize the phrases. In some beliefs, drums are also believed to hold a soul, spirit or paranormal power and should not be passed among many owners or performers

African tales are filled with narratives of the spiritual power a drum can have, for healing, for war, for power and as a scourge to people. The sacred drum of vhaVenda, *Ngoma-lungundu*, the “drum of the dead [or] ancestors”- was culturally regarded as the voice of God. Drums accompany different modes of communication among earthlings, and in communication between realms, with the intangible/spiritual worlds. They are used to accompany singing, dancing, healing, mourning, as a status symbol, for entertainment and even storytelling. The *Vimbuza* dance of the Tumbuka people of northern Malawi, forms part of a rich African tradition of psychiatric healing using drum beats. “Singing and drumming cohere into powerful experiences, providing a space for patients to dance their disease (*kuvina nthenda*)” . Many visitors and tourists who are not aware/conscious of some of African traditions and practices reduce such dances that are spiritual and have medical benefits to the body and spirit, to a form of entertainment without recognizing deeper meanings and uses. There is a rich history and purpose in the sound, and you should try and understand the message. (Sylvester Otieno, 2014)

Vimbuza healing dance Malawi

Vimbuza is a healing dance popular among the Tumbuka people living in northern Malawi. It is an important manifestation of the ng’oma, a healing tradition found throughout Bantu-speaking Africa. Ng’oma, meaning “drums of affliction”, carries considerable historical depth and, despite various attempts over the years to suppress it, remains a fundamental part of indigenous healthcare systems.

Most patients were treated for some weeks or months by renowned healers who run a temphiri, a village house where patients are accommodated. After being diagnosed, patients undergo a healing ritual. For this purpose, women and children of the village form a circle around the patient, who slowly enters into a trance, and sing songs to call helping spirits. The only men taking part are those who beat spirit-specific drum rhythms and, in some cases, a male healer. Singing and drumming combine to create a powerful experience, providing a space for patients to “dance their disease”. Its continually expanding repertoire of songs and complex drumming, and the virtuosity of the dancing are all part of the rich cultural heritage of the Tumbuka people.

The Vimbuza healing ritual goes back to the mid-nineteenth century, when it developed as a means of overcoming traumatic experiences of oppression, and it further developed as a healing dance. By becoming possessed by Vimbuza spirits, people could express these mental problems in a way that was accepted and understood by the surrounding society. For the Tumbuka, Vimbuza has artistic value and a therapeutic function that complements other forms of medical treatment. Vimbuza is still practised in rural areas where the Tumbuku live.

The effects of these rituals are broad and include stress reduction, social support, support of prosocial behaviours, psychodynamic growth, and placebo effect (a treatment that appears real, but is designed to have no therapeutic benefit). Like meditation, they appear to involve an “integrative mode of consciousness,” through which unconscious and contradictory aspects of the self can be integrated to make a more functional person

Existing in aMet the transcendental dimension,” “body and mind became one,” “sacred space, presence of spirits, healing power, consciousness expanding” beyond the normal range of our experience of our material universe. (Unesco, n.d.)

CIRCLES

“Wisdom is like a baobab tree; no one individual can embrace it.”

African proverb

Architecture of place, geographical culture and place are linked.

The form running across all themes discussed in circles these rounded shapes tend to send a positive emotional message of harmony and protection. (O'Connor, 2019)

They represent connection and community. Circles have no beginning or end, they represent life and the lifecycle. The circle along with the oval is readily found in nature with the sun, moon and earth. Circles have a free sense of movement – wheels, balls, merry go rounds. Their movement may also represent power and energy. Due to their curved lines, ovals and circle are graceful and complete. They give a sense of integrity and perfection. They are not used as much in design for spacial reasons, but this means that when they are used, that they attract more attention than their right angled counter parts.

Anthropologists have observed that many Indigenous African societies created fractals in their architecture, textiles, sculpture, art, and religion. This was not simply unconscious or intuitive, as Africans linked these designs to concepts such as recursion and scaling. (CSDT, African Architecture, n.d.)

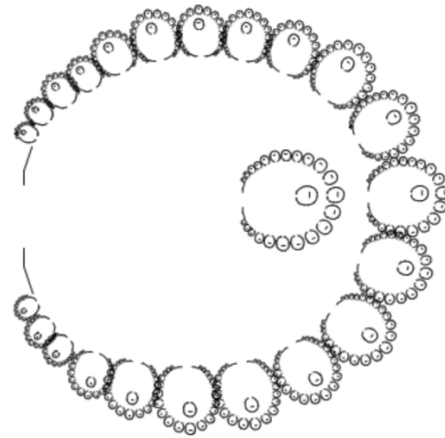
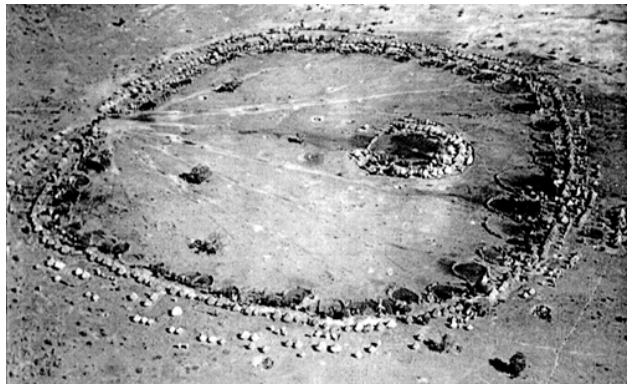


Figure 11 Ba-ila Settlements of Southern Zambia

The Ba-ila settlements of Southern Zambia are enormous rings. They are made up of smaller rings, which are livestock pens (corrals). And those are made up of smaller rings which are single cylindrical houses and storage rooms. It is a ring of rings of rings. Toward the back of the village is a miniature village; that of the chief's extended family. Toward the back of each corral is the family living quarters. And toward the back of each house is the sacred altar. As a logician would put it, the chief's family ring is to the whole settlement as the altar is to the house. They view this as a recurring functional role between different scales within the settlement. The chief's relation to his people is described by the word *kulela*, a word we would translate as 'to rule'. However it has this only as a secondary meaning— *kulela* is primarily to nurse and to cherish.

The same word applied to a mother caring for her child, making the chief the father of the community. This relationship is echoed throughout family and spiritual ties at all scales, and is structurally mapped through similar architecture. New York architect Bernard Tsuchmi experimented with this simulation when exploring designs for a museum of African Art. The corrals get bigger going from the front entrance of the village to the back to signify a status gradient, the families with the most livestock will be in the back, and those with the least in the front. The buildings get bigger going from the front of the corral to the back, another status gradient: the livestock are toward the front and humans toward the back. And it is for that same reason that the altar is toward the back in the smallest scale, and the chief's family village is toward the back at the largest scale. (CSDT, *African Fractals*, n.d.)

African Indigenous settlements have a beautiful tradition of nonlinear scaling: circles within circles; rectangles within rectangles, and so on. These fractal patterns can be utilized in contemporary African architectural design, returning cultural value to the people who generated it. They also have environmental advantages: reducing need for air conditioning; creating irregular green spaces that break up the monotony of grids; making space for outdoor meetings, etc. (TALKS, 2007)

The circular arrangements were often aligned to create a calendar aligned with the solar movements of the sun and equinoxes. By following the movements of the shadows (adams calendar). (TALKS, 2007)

METaverse DESIGN

Architecture as a profession is both deeply rooted in the past and driven by innovation. During the past few years, we have seen technology advancing at an unprecedented pace, developing tools and systems that change the way we understand the world. Digital spaces are becoming an accessible reality, as the metaverse is promising to enhance human interaction. Other digital tools such as robotic construction technologies, AI-generated images, and immersive virtual-reality equipment are likely to have a direct impact on the construction industry. (Daily, 2022)

CONCLUSION

A people without knowledge of their past history origin and culture is like a tree without roots
- Marcus mosiah garvey

African cities can flourish in sustainable, equitable ways -- balancing growth with values that are uniquely African. An African model of construction that is sustainable just like they did 1000 years ago.

Know thyself remember your ancestors
~ unknown

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