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Abstract
Abuja, Nigeria became the capital of Nigeria as a result of Lagos being over crowded, congested, and had no lands for expansion. In the process of establishing a new capital at Abuja, a Master Plan was put in place however, the Master Plan was abused. The abused Master Plan resulted in Abuja urbanization, environmental development disarray, slums and housing inadequacy. This paper aimed at identifying a noticeable new phenomenon or rather the emergence of a new dimension in urban poor housing (settlements) in Abuja, characterized by the invasion of the formal residential areas by informal settlers. The author adopted content base analysis (qualitative research method). The Abuja Master Plan and Abuja urban development laws were not properly executed and coordinated by the Abuja urban actors and that, resulted in slum developments, infiltration of the formal settlement areas by informal settlers, inadequacy of affordable housing, etc. Abuja will grow into a model city if the Abuja urban actors would coordinate and properly execute the Master Plan and the development laws, integrated into a coordinated programme that would take advantage of urban development principles that would create the much needed environment for the inhabitants. Adopt new urbanism theory that would promote the use of high rise building approach, retention of the urban poor neighborhoods and creating environment, where the residents can live and work.

Keywords: economy, urbanization, spatial, new urbanism, urbanization, housing, population

Introduction
The need to transfer the capital of Nigeria from Lagos to Abuja, came as a result of the former nation's capital, Lagos, being over crowded, congested and had no lands for expansion. Olaitan (2004) indicated that, the concept of Abuja as a befitting Federal Capital Territory, centrally located and without the defects of Lagos was spawned in 1975.

In the process of establishing a befitting new nation's capital, a Master Plan of the Abuja Federal Capital Territory was established. The resultant Master Plan was prepared such that land use, infrastructure, housing, transportation, recreation, economic and social services are coordinated and inter-related, Olaitan (2004), citing Abba (2003). Successive governments in Abuja have neglected these principles. As such, series of distortions to the concept, direction and implementation of the Master Plan are prevalent today (Olaitan, 2004).

According to the Abuja Master plan (1979), the development of the city was designed to be in four phases with a clearly defined target population of three million inhabitants. The city was designed as an efficient and attractive environment at each stage of its growth – from Phase 1,
which was designed to accommodate 230,000 residents through Phases II and III, which were to accommodate 585,000 and 640,000 respectively, to Phase IV aimed at accommodating 1.7 Million. Its ultimate population is estimated at 3.1 million (Olaitan, 2004). As it is the case with development implementation in most developing nations, Abuja Master Plan was distorted, following different policy changes that affected Abuja. According to Jibril (2006), “between 1976 and 2003, (a period of 27 years) there had been about four major policy changes affecting resettlement within the FCT.” They are: (1), It was the original intent of the Abuja Master Plan to relocate the inhabitants, occupying the Federal Capital Territory area, however, careful enumeration later revealed that the figure was not ‘few’ – about 150,000 – 300,000 people. Uprooting such a huge population was thought to be unwise and could have delayed the take-off of the project. It was then decided to allow the inhabitants to remain, but could be resettled within the territory, should their places of abode be affected by city development projects. (2), in some cases, at the time of relocation, plans were canceled for political reasons. While the people affected were fully prepared for movement to the new location, another policy change happened (Jibril, 2004). (3), in preparation for the 2003 general election, the additional security personnel brought into the Federal Capital Territory occupied the buildings under the resettlement scheme (plate 1). These major shifts in policy direction can be said to be the root cause of problems of squatters and Land Administration within the FCT (Jibril, 2006).

Plate 1. Resettlement village taken over by the Nigerian Police Force (fieldwork 2005)
Source: Jibril (2006)

(4). The derail and distortion of the Abuja Master Plan was also attributed to lack of professional personnel managing and planning the development of Abuja Master Plan. According to Jibril (2004), "the main cause of the distortions of the Master Plan was the creation of the Ministry of the Federal Capital Territory (MFCT) in 1980 and its being super imposed on the Federal Capital Development Authority (FCDA). The Ministry lacked the professional personnel to understand the philosophy of a Master Plan and the need for detailed planning and design to be carried out before the Master Plan could be transformed into construction activities in any part of the City."

Jibril (2004) further indicated that, "in 2003, a Ministerial Committee on Illegal Structures in the FCT was constituted to collate a list of all illegal structures in the FCT and present a strategy for demolition. Interestingly, most of the members of the committee were not professional planners."

(5), the unplanned territorial growth and developments occurring in the Central Area of the City could also be traced back to the governments rush to relocate the government workers
from Lagos to Abuja. These problems are as a result of the rushed movement of workers from Lagos to Abuja without adequate provision for accommodation. The result was the emergence of a number of shantytowns and squatter settlements occupied by workers and the growing service population in such places as Karu / Nyanya, Karmo and Gwagwalada because there were not enough housing accommodations in the Central City area of Abuja to house them and the majority of the houses in the Central City were too expensive for the low income workers. These settlements have grown rapidly and are generally unplanned, overcrowded and lacking basic amenities and infrastructure. Although, many of the rushed housing developments within the city area have had to be demolished, the shanty developments persist in the periphery of Abuja especially as there is still little provision for housing accommodation for the low-income workers within the city (Olaitan, 2004).

Adeponle (2013) observed "that Abuja city is growing faster (13%) than the provisions of its Master Plan." It is fast turning into an environmental embarrassment, with developments springing up in gross isolation of zoning and other planning codes. Abuja, which was supposed to be an epitome of beauty and an enlightened vision of city development, has suffered over the years from unnecessary distortions in the implementation of its Master Plan. (Adeponle, 2013).

As a result of these changes in the Abuja Master Plan and policy inconsistences, the Abuja Central City designed to be a model city is not sustainable. It is divided between success and failures, rich and poor. It has potentials to flourish, but in most part, impoverished. The Central City is characterized by urban dialectics, dualistic living and infiltration of the formal settlement areas by informal settlers because of provision of services to the inhabitants of the formal settlement areas. There exist, a clear disparity in the socio-economic base of the two settlements yet, they co-exist. The two settlements co-existing within the formal settlement areas of the Central City are not integrated yet, because of nearness to their jobs and survival, the informal settlers infiltrating the formal settlement areas characterized as the urban poor, find their ways into the formal settlement areas of the Central City. In order to provide services and earn their living, the urban poor, through self-efforts, provide their shelters on government vacant lands, abandoned buildings and on city side-walks (plate 2). The informal settlement areas within the Central City of Abuja are not integrated into the Central City infrastructure and that is one of the major challenges of the city as a result, promoting urban poor growth that resulted in squatter settlements.

Plate 2. Abuja’s public space (housing/shelter)
Source: the author (June 2016)
A typical space becomes the shelter/house and the house becomes the space (for most of these people who are security guards, their relations and friends) in the case of urban poor and urban poor housing in Abuja. In most cases, these spaces are without spatially distributed objects yet, they are side by side with formal settlements without proper links and visually acceptable urban objects, elements and qualities. The nature of the socioeconomic complexity of these informal spaces, which analysis will show in this paper, constitute a strongly identifiable character which is in this work christened Spatial Housing. It is so termed because of the assumption of the public/open space into the provision of the basic (spatial) socioeconomic, psychological, shelter, etc. needs of the urban poor.

This phenomenon is different from those of the destitutes/homeless people in the city. The informal inhabitants are more or less fixed in location (even though improper location) and actively dependent on the socioeconomic activities of the urban economy. To that effect, Abuja urbanization is growing more than the area’s urban development vis-à-vis housing and economic resources. In the formal sense, spaces can be defined and differentiated, however same cannot be said in the informal, hence ‘spatial dialectics’. **Within the space is the spatial housing characterized by informal volumetric and unvolumetric combination now called the 'spatial house', 'open house' or 'house without limit (plate 2).**

**All the Abuja government’s housing programmes have failed.**

- The housing provided by the Abuja government failed because of inadequacy of housing and a good access to the central facilities through a corridor of open spaces and lack of economic connectivity (secondary employment).
- The Master Plan was prepared such that land use, infrastructure, housing, transportation, recreation, economic and social services were to be coordinated and inter-related (Olaitan, 2004, citing Abba, 2003), but that was not the case during the implementations.
- Much of our daily experience of the city occurs within the collectively shared public spaces, or the public domain. Not only does the public domain provide for most basic of the city’s functions, access, but it also provides for and contains many other functions and activities synonymous with urban life. These are lacking and the problem with Abuja’s environmental and urban development.
- Prior to 1973, government activities in public housing had been quite sectional and favored only the working class elites in the society. The poor and low-income were relegated to the background (Olu-Sule, 1988).
- The Abuja government’s housing programmes have not worked. The provided Federal Housing units were developed without adequate economic and municipal service facilities as a result, the housing units are not sustainable and also, inadequate for the Abuja steaming population. It equally fail because of the government rush to move government workers from Lagos to Abuja when the government has not provided adequate housing for the workers.
- Not only that, the Capital City was planned to be built by the Federal Government in its greater part. The Master Plan actually provided for low-income settlements (housing) areas, to be built by the government and to be occupied by the public servants; the private sector servants did not appear to be properly provided for.

The government’s approaches to solving the problems of the urban poor housing issues in Abuja Federal Capital Territory have not yielded a reliable solution; especially in the area of
urban spatial distribution being created by the invasion of the formal by the informal urban dwellers.

The invasion of the formal settlement areas by informal settlers occurred because of the increasing population of poor people into Abuja in search of greener pasture. According to Bello (2009), generally, as the population and affluence grow, there is an increase in the demand for land by government, private individuals and corporate bodies. Unfortunately, since the physical overall supply of land within a geographical area is fixed, demand always outstrips supply by a very wide margin, especially in the urban centers. This inevitably brings about the survival of the fittest syndrome. In this struggle, government has the upper hand through the exercise of their power of eminent domain, while individuals and corporate bodies meet their land requirements in the open markets. Within the open market, the corporate bodies and the rich individuals usually with higher bargaining power, dominate the transaction; while the urban poor are left with little or no choice but to make do with the crumbs. Consequently, this group of individuals, in most cases, occupies the less desirable areas such as marshy sites, neighborhood adjacent to refuse dumps and where they can find one, they encroach on government lands.

The emergent settlement usually evolved as a spatial concentration of poor people in the poor areas of the cities. As expected, this settlement is usually characterized by infrastructure deficiencies, shanty structures, poor sanitation, urban violence and crime. These composition and characteristics have always made squatter settlement a source of worry and concern to their adjacent neighbors and governments (plate 3).

Plate 3. Abuja Slum Architecture
Source: buzznigeria.com

Since Abuja became Nigeria’s Federal Capital Territory in 1976; it has been experiencing rapid expansion, urbanization and significant changes in its physical landscape (Ujoh et al. 2010). The unplanned territorial growth and developments occurring in the territory could also be traced back to the governments rush to relocate the government workers from Lagos to Abuja as
Olaitan (2004) agreed. These problems are as a result of the rushed movement of workers from Lagos to Abuja without adequate provision for accommodation. The result was the emergence of a number of shantytowns and squatter settlements occupied by workers and the growing service population in such places as Karu / Nyanya, Karmo and Gwagwalada. These settlements have developed rapidly and are generally unplanned, overcrowded and lacking basic amenities and infrastructure. Although, many of the rushed housing developments within the city area have had to be demolished, the shanty developments persist in the periphery of Abuja especially as there is still little provision for housing accommodation for the low-income workers within the city (Olaitan, 2004).

Adeponle (2013) observed that Abuja city is growing faster (13%) than the provisions of its Master Plan. It is fast turning into an environmental embarrassment, with developments springing up in gross isolation of zoning and other planning codes. Abuja, which was supposed to be an epitome of beauty and an enlightened vision of city development, has suffered over the years from unnecessary distortions in the implementation of its Master Plan. Adeponle (2013) further indicated that, rapid urban expansion without effective environmental consciousness means that in virtually every urban center – from large cities and metropolitan areas to regional centers and small market towns – a substantial proportion of the population is at risk from natural and human induced environmental hazards.

The poor implementations of the Abuja Master Plan, coupled with unplanned territorial/urban growth, influx of people and developments resulted in Abuja’s urbanization. In the contemporary Nigerian situation, urbanization is an unstoppable phenomenon. Okonkwo (2013) stated that, urbanization is not a recent phenomenon in the history of Nigeria.

This phenomenon according to Okonkwo (2013) was nation-wide, affecting mostly state capital cities such as Enugu. New employment opportunities became available with the emergence of many industrial units in these urban centers. In addition, the creation of 19 states, each with its own capital city, stimulated a drift of population to these capitals with the associated demand for housing both for official and for private residential uses. These developments produced a great pressure on the sizes of urban centers in Nigeria. Urbanization which occurs without adequate industrialization, sufficient formal employment or secure wages, has condemned burgeoning urban populations in the Third World to poor-quality housing. The problem has been compounded by a lack of government funds for housing subsidies, by inflated land prices boosted by housing needs and speculation, and by real-estate profiteering on the part of the upper and middle classes. The operation of the class structure of Third World cities nowhere more geographical explicit than in the composition and working of the housing market. Only the small upper and middle classes in Third World cities have income, job security and credit worthiness to purchase or rent houses in properly surveyed, serviced and legally conveyed developments (Dickenson, 1983).

The same small upper and middle classes in Third World cities have benefited from government sponsored housing programmes in the past. In his Housing and Environmental Planning, Olu-Sule (1988) indicated that, prior to 1973 government activities in public housing had been quite sectional and favored only the working class elites in the society. The poor and low-income were relegated to the background. For example, during the first Development Plan period, 1962 – 68, no attention was accorded housing generally. It was under the town and country planning. Government’s policy to house the low-income and the underprivileged did not crystallize even during the Second National Development Plan of 1970 – 74. In spite of
the N49 million allocated Town and Country Planning, housing was overshadowed by other priorities of the planning department.

Housing as a major government social service venture did not receive any priority attention it deserved until the Third National Development Plan of 1975 – 80 when the Federal Government of Nigeria allocated the sum of N2.5 billion to housing for the creation of 202,000 units mostly for low-income families. **The defective and ineffective methods of allocating these houses to the low-income, the medium-income and under which the underprivileged masses received their shares is the bone of contention in the Nigeria public housing policy** (Olu-Sule, 1988).

The 1980 – 85 Development Plan when N1.6 million was allocated to housing sector did not achieve any better success than its predecessor. The plan included the construction of 200,000 housing units; provision of staff quarters and staff housing loans; site and services programme and urban development in collaboration with the World Bank. In addition to Federal Government budgeting efforts, the state governments committed the sum of N1.1 million to the housing sector during 1980 – 85 Development Plan. **The core of the problem in all these Development Plans -1962 – 68 to 1980 – 85 was not the financial allocation or the units completed, but who got the houses.** Hard evidence exists that those who benefited from the general government financial capital investment in housing sector has been the upper-income families (Olu-Sule, 1988).

For the urban poor, in the process of finding a place to live, Aduge-Ani (2013) indicated that, a family of seven persons, which comprises the father, mother and about five children live in one room apartment. These people do not even have spaces for bathroom as they take their bath in open spaces. To the residents of these settlements, fresh air is an expensive commodity because of the tight spaces they live in.

Lack of accommodation has become the bane of most Abuja residents. During the Mallam Nasir el-Rufai administration of the Federal Capital Territory (FCT), many residents of Abuja lost their houses to the demolition exercise. That incident, however, contributed to the high cost of securing accommodation in the city center and even in the satellite towns. The influx of people into Abuja to look for greener pastures has helped to worsen the situation. To the average civil servant, securing a befitting accommodation in the FCT, irrespective of its location, is not only a challenge, but also an uphill task. Decent accommodation has continued to constitute a big problem to Abuja residents. Houses located at Garki, Maitama, Asokoro, Wuse, Jabi and Utako districts are practically beyond what the middle and low income earners can afford (Web Team, 2011). That resulted to concentration of squatter settlements in the Federal Capital Territory.

**The questions are, who are the people mostly affected by the poor implementation of the Abuja Master Plan, Abuja demolitions and, the high cost of securing housing accommodation in Abuja and its territory?** According to Bamidele (2010), most of the workers who cannot afford to live within the city, find their way to the squatter settlements and uncompleted or abandoned buildings within the city which punctuated all high-brow areas of the city and many (plates 1 -10). The people, according to Uji and Okonkwo (2007), frustrated by the inadequacies and failure of the conventional approaches to provide urban shelter and services to a significantly large enough proportion of the poor in the urban areas of the developing nations, these ever-increasing class of urban populations have to resort to squatting on public or private land, either by invading and forcefully occupying or leasing such land (illegally sub-divided) on which they hurriedly construct (through self-help) their shelter from any available materials using any readily affordable and available technology.
Notwithstanding the urbanization phenomenon, be it political, social and economy, the important focus of this paper is the spatial integration of the urban poor in Abuja. Abuja is not the only Nigerian city experiencing urban poor housing settlement problems, Enugu, Lagos and other big urban centers are also, dealing with the social issues. However, Abuja been the fastest growing city in the nation, the paper focused primarily on the spatial equilibrium of the Abuja urban poor housing.

In the past, various FCT governments have tried, accommodating the interests of the Abuja urban poor and without success. The government’s approaches have not necessarily, extensively reviewed and investigated the ancestral concerns of most of the residents of the Abuja urban poor communities. A lot of government’s solutions are centered on quick-fix urban renewal programmes that have not in anyway, helped the course of the urban poor communities and settlements in Abuja metropolis. The demolition exercises (several), resettlements and land swaps programmes adopted by the governments have added more frustrations to the Abuja urban poor problems instead of solving them. Almost all the government housing programmes have failed to address the housing needs of the urban poor, especially, the Abuja urban poor housing demands. Keeping and maintaining the government’s failed, orthodox housing delivering schemes to the expanding poor Nigerian populations, how can the government, sustainably, provide where the urban poor can live without disturbing the urban equilibrium, knowing that they (the urban poor) have no lands, that they squat anywhere they see and provide services needed to maintain the rich communities (plates 1 - 10)?

Statement of Problem
The rapid expansion and urbanization in Abuja, resulted in spontaneous growth of slums, shanty towns and ghetto settlements in the city center and surrounding territory. These resulted as a result of the inability of the Abuja urban actors and the Abuja laws in properly directing urban development in Abuja. The situation is heightened by demolition exercises during the Mallam Nasir el-Rufai administration of the Federal Capital Territory and steady influx of migrants which cumulatively have resulted in greater population being without housing and sustainable residential environment.

Aim of Study
The aim of this paper is to identify a noticeable new phenomenon or rather the emergence of a new dimension in urban poor housing (settlements) in Abuja, the Federal Capital Territory of Nigeria, characterized by the invasion of the formal residential (housing) areas of the city by the informal settlements of the urban poor.

Research Method
This paper investigated the causes of the failure of the Abuja urban actors, architecture, urban development and urban development solutions, to improving the state of architecture in Abuja. The authors were careful with analytical instruments and tool used. The disciplinary area of focus is architecture, or better said, architecture and the urban environments, urban design and urban architecture. As such, the authors adopted content base analysis (qualitative research method). According to Mayoux (2005), qualitative method investigates the why and how of decision making, not just what, where, when, or "who."

Finding
In an article, the Story of Koroduma, the Slum near Asokoro in Abuja, Nigeria, where Opulence meets Squalor, Odinaka (2017), indicated that, it is a tale of striking ironies. Opulence on one
side, squalor and debilitating poverty on the other side. That is the story of Koroduma, a slum near the highbrow Asokoro in the Federal Capital City of Abuja, Nigeria (plate 4).

Plate 4. Koroduma community, Abuja
Source: Daily Sun. Retrieved: October 18, 2018

Undoubtedly, there are scores of slums in Abuja, but Koroduma stands out for its heart-rending narrative. The United Nations Human Settlements Programme (UN Habitat) in Nigeria has stated that about 80 million Nigerians, representing 79 per cent of the population, are living in slums. Growth of informal settlements are on the increase in the FCT. This is largely as a result of inadequate, unaffordable housing for all classes of the citizenry. The challenges of securing land tenure for the teeming populace, the high cost of building materials, inaccessible mortgage mechanisms for the poor as well as the high rents of urban accommodation have been responsible for the mushrooming of many of the city’s suburban slums. To get to Koroduma village, one needs to get to the “Asokoro AYA,” where tricycle-lists line up for their turns to the bus stop called Kasangari. There, one would be greeted by hundreds of makeshift shacks, most of them made of mud, roofed with rusty zinc sheets (plate 4).

The settlement, like every other village, despite the obvious chaos in the structures, has leaders and a system of law and order. One feature of the village that stands out is its landscape. Roads are dusty and narrow. Every available space is littered with garbage, especially polythene bags and used water packs popularly known as ‘pure water.’ Across the length and breadth of the village, a visitor is first greeted by blaring local music from loudspeakers, while young men and women loiter about, drinking and smoking cigarettes.

According to Odinaka (2017), the community has a lodge (joint), called Madam Delta D Lodge, where s*x workers live and do business. At the lodge, there exist a central point where visitors wait and drink as the call girls mill around displaying the shapes and contours of their body to attract customers. They started the lodge by selling drinks and from there, they constructed rooms around the place, where the prostitutes live and do their work, mostly at night (growth).
A room in the village costs N4,000 a month, depending on the nature of the house. An apartment built either with mud or cement costs between N100,000 and N150,000 in rent compared to millions of Naira paid in properly surveyed areas in Asokoro and other parts of the Abuja city. The residents seem to have come to terms with their community and see nothing wrong with their garbage-infested environment. It is a place that would always command attention and elicit questions such as, what really have the Koroduma residents done that they are left to wallow in such abject poverty even when Asokoro is just a shouting distance away?

Adiukwu (2014), in his Prospects and Challenges of Informal Settlements and Urban Upgrading in Abuja, indicated that, poverty has a social dimension (poor quality of housing and the living environment, i.e. lack of access to basic services like clean water, health care, education etc.). Abuja is one of the most rapidly urbanizing cities in Africa, faced with challenges of squatter settlers. The shelters are, built by the efforts of the squatters who cannot afford to secure legal or formal land or a safe site on which a house can be, built. Informal land developments provide shelter for over 85% of the population of urban residents in most developing Nations (UNCHS, 1996 and 2000; Durand-Lasserve, 1997).

Urban Poverty, according to Adiukwu (2014), citing Copenhagen resolution (2000), is strongly associated with high levels of environmental risk. This is largely due to poor quality and overcrowded housing conditions and the inadequacies in provision of water, sanitation, drainage, health care, garbage/waste collection, poor percolation resulting into flood, building on waterways and pollution of land, air, and water (plate 5). Daramola and Ibem (2010) affirmed that the concentration of more people in urban areas has brought more pressure on the land space for the production of food, infrastructure, housing, and industrialization. The movement affects the capacity of the environment to cope, as each additional person increases the demand on the infrastructure and the natural system and as result creating ecological imbalance with adverse environmental penalty in hazards and disaster.

Plate 5. Abuja Slum
Source: Abuja-ng.com

Urbanization
Almost all the major urban areas in the world are witnessing rural to urban migration resulting in urbanization. In his “Economic Implications of Rapid Urban Growth in the Third World
Countries,” Sijuwade (2010) indicated that, we have seen that rural-urban migration brings workers to cities that are already burdened with surplus labor.

To accommodate and provide enough housing for the urban immigrants, more lands must be made available. “Our overall demand for land resources finds its roots in the needs and aspirations of the many individuals who make up society. People have different wants and desires. Up to a point, everyone is primarily concerned with the physical need to secure sufficient food and other materials to sustain life. Beyond that, what people want of land is influenced by their knowledge of how land resources can be used, their cultural and educational background, incomes and spending power, individual tests and personal goals, and by the changing attitudes that come with advancing age. Each of these factors helps to condition the overall demand picture. But the single most important factor that affects demand for land is population numbers. It is imperative, therefore, that we begin this discussion with some considerations of the problems of population pressure and population growth” (Barlowe, 1986).

The population growth and its pressure on land resulted in land administrators managing the land and the elements introduced (urban planning and development) for the interest of the population.

Modern Urban Planning
Planning and architecture went through a paradigm shift at the turn of the 20th century. The industrialized cities of the 19th century had grown at a tremendous rate, with the pace and style of building largely dictated by private business concerns. The evils of urban life for the working poor were becoming increasingly evident as a matter for public concern. The laissez-faire style of government management of the economy, in fashion for most of the Victorian era, was starting to give way to a New Liberalism that championed intervention on the part of the poor and disadvantaged. Around 1900, theorists began developing urban planning models to mitigate the consequences of the industrial age, by providing citizens, especially factory workers, with healthier environments (Hall and Tewdwr-Jones, 2010).

The first major urban planning theorist was Sir Ebenezer Howard, who initiated the garden city movement in 1898. This was inspired by earlier planned communities built by industrial philanthropists in the countryside, such as Cadburys' Bournville, Lever's Port Sunlight and George Pullman's eponymous Pullman in Chicago. All these settlements decentralized the working environment from the centre of the cities, and provided a healthy living space for the factory workers. Howard generalized this achievement into a planned movement for the country as a whole. He was also influenced by the work of economist Alfred Marshall who argued in 1884 that industry needed a supply of labour that could in theory be supplied anywhere, and that companies have an incentive to improve workers living standards as the company bears much of the cost inflicted by the unhealthy urban conditions in the big cities (Hall and Tewdwr-Jones, 2010).

Howard's ideas, although utopian, were also highly practical and were adopted around the world in the ensuing decades. His garden cities were intended to be planned, self-contained communities surrounded by parks, containing proportionate and separate areas of residences, industry, and agriculture. Inspired by the Utopian novel Looking Backward and Henry George's work Progress and Poverty, Howard published his book Garden Cities of To-morrow in 1898, commonly regarded as the most important book in the history of urban planning (Howard, 1898). His idealized garden city would house 32,000 people on a site of 6,000 acres (2,428 ha), planned on a concentric pattern with open spaces, public parks and six radial boulevards, 120 ft (37 m) wide, extending from the centre. The garden city would be self-
sufficient and when it reached full population, another garden city would be developed nearby. Howard envisaged a cluster of several garden cities as satellites of a central city of 50,000 people, linked by road and rail (Goodall, 1987).

In North America, the Garden City movement was also popular, and evolved into the "Neighbourhood Unit" form of development. In the early 1900s, as cars were introduced to city streets for the first time, residents became increasingly concerned with the number of pedestrians being injured by car traffic. The response, seen first in Radburn, New Jersey, was the Neighbourhood Unit-style development, which oriented houses toward a common public path instead of the street. The neighbourhood is distinctively organized around a school, with the intention of providing children a safe way to walk to school (Christensen, 1986 and Schaffer, 1982).

Modernism: Contemporary Period
In the 1920s, the ideas of modernism began to surface in urban planning. The influential modernist architect Le Corbusier presented his scheme for a "Contemporary City" for three million inhabitants (Ville Contemporaine) in 1922. The centerpiece of this plan was the group of sixty-story cruciform skyscrapers, steel-framed office buildings encased in huge curtain walls of glass (plate 6).

Plate 6. Partizánske in Slovakia – an example of a typical planned industrial city founded in 1938 together with a shoemaking factory in which practically all adult inhabitants of the city were employed.
Source: Internet (September 2015)

These skyscrapers were set within large, rectangular, park-like green spaces. At the centre was a huge transportation hub that on different levels included depots for buses and trains, as well as highway intersections, and at the top, an airport. Le Corbusier had the fanciful notion that commercial airliners would land between the huge skyscrapers. He segregated pedestrian circulation paths from the roadways and glorified the automobile as a means of transportation. As one moved out from the central skyscrapers, smaller low-story, zig-zag apartment blocks (set far back from the street amid green space) housed the inhabitants. Le Corbusier hoped that politically minded industrialists in France would lead the way with their efficient Taylorist and Fordist strategies adopted from American industrial models to re-organize society (Norma. 1969:7).

In 1925, he exhibited his "Plan Voisin", in which he proposed to bulldoze most of central Paris north of the Seine and replace it with his sixty-story cruciform towers from the Contemporary City, placed within an orthogonal street grid and park-like green space. In the 1930s, Le Corbusier expanded and reformulated his ideas on urbanism, eventually publishing them in La Ville radieuse (The Radiant City) in 1935. Perhaps the most significant difference between the
Contemporary City and the Radiant City is that the latter abandoned the class-based stratification of the former; housing was now assigned according to family size, not economic position (Fishman, 1982:231).

The Architecture of Objects and Decline of the Public Domain
Modernism also came with the decline in the quality of the architecture of public spaces as was the case in the eras past. As indicated by Curran (1983:5), directly related to the reduction of architectural structures to the status of objects, the most dominant characteristic of the modern tradition has been the deterioration and virtual disappearance of the public domain. No longer sustaining a range of activities traditionally associated with urban life, the public domain has been reduced to the exclusively use of the automobile, and the city, as a collection and system of spaces having multiple social as well as functional roles, was lost. This has paralleled the decline of public participation in government, industry, community affairs, etc., which represent the other vital dimension of the public domain. Accordingly, the city-making process has been fragmented into separate and specialized professions, including city and regional land-use planning, road and highway engineering, landscape architecture, architecture, etc. As in factory-line production, each is concerned with a single aspect of the process, while the effects of their input within the community has been lost to abstraction (Curran, 1983:5).

Urban Crisis
By the late 1960s and early 1970s, many planners felt that modernism's clean lines and lack of human scale sapped vitality from the community, blaming them for high crime rates and social problems (Morris et al. 1997). Modernist planning fell into decline in the 1970s when the construction of cheap, uniform tower blocks ended in most countries, such as Britain and France. Since then many have been demolished and replaced by other housing types. Rather than attempting to eliminate all disorder, planning now concentrates on individualism and diversity in society and the economy; this is the post-modernist era (Morris et al. 1997).

New Urbanism
Various current movements in urban design seek to create sustainable urban environments with long-lasting structures, buildings and a great livability for its inhabitants. The most clearly defined form of walkable urbanism is known as the Charter of New Urbanism. It is an approach for successfully reducing environmental impacts by altering the built environment to create and preserve smart cities that support sustainable transport. Residents in compact urban neighborhoods drive fewer miles and have significantly lower environmental impacts across a range of measures compared with those living in sprawling suburbs (Ewing, 2009).

Drift in Architecture and Urban Planning
A global perspective tells the story of this global shift and transformation, highlighting the role of architects, urban designers, planners and their clients: central government, local governments, communities, non-governmental organizations (NGOs), developers and world institutions in city planning and development (Shane, 2011:12). This is accomplished through the urban actors and the urban actors adopt urban design models and elements to achieve that goal in city planning, development and transformation. The first theme (model), in city transformation is that, the urban actors need to cooperate not only in building the city, but to maintain and regenerate it, to modify and transform it. Cities are about people living together, and this requires organization and skills in managing the affairs of the local community and larger city (Shane, 2011:14).
According to Shane (2011), as cities have grown, so has the need for organization that leads to the second theme of cybernetics: urban modeling and self-organization. This enables the urban actors to process far more information than before, looking for self-organizing, interactive patterns and emergent conceptual models in the complexity of cities in the 1960s. The third thread in this story of urban transformations is the idea that urban actors manipulated a limited set of urban elements in building their urban models and cities. The three important urban elements employed by urban actors in constructing cities are enclaves, the armature and the heterotopia.

Enclave is a more or less bounded space like a field in the countryside, a piece of urban property with a wall around it or an open space like a square at the center of a city surrounded by buildings (Shane, 2011). Enclave, a part of a country entirely surrounded by foreign territory: viewed from the position of the surrounding territories (Collins, 2012).

An armature is a linear spatial organizing device, like a street or highway with sequential, numbered houses or axis. Urban actors often use armature as the approach to an enclave, to cut through enclaves or as the link between two attractors (Shane, 2011). The concept of “urban armatures,” referring to any set of main streets, plazas, and major public buildings linked by means of arches and fountains that connect one end of the city with the other, has been chiefly analyzed in central and western Roman contexts (MacDonald 1982). Before MacDonald’s study, the prevailing viewpoint held that Roman city planners in the Republican period and into the Augustan age imitate Greek models based on rigidly orthogonal axes (e.g., Ward-Perkins 1974). In contrast, MacDonald stresses the innovativeness of Roman cities in their organically-generated urban armatures. The prolonged development and additive nature of these urban armatures contrast starkly with customary notions of theoretical city planning. Instead of following a strict gridded plan, this theory demonstrates how a flowing spatial unity pulls strolling pedestrians along from city gates to all-important forum complexes in the city center, easing the transition from one region to the next. The traditional way of studying and visualizing a city’s urban development uses multiple diagrams denoting public buildings, communal spaces, and residential areas present in a given period (Ratté 2008). Figures 1 and 2, looked at two different models of urban armatures and how city actors manipulate the spaces for the comfort of the users.

**Figure 1.** Edmonton, Canada Redevelopment Plan’s Armature
**Source:** Google (September 26, 2015)
Heterotopia is a specialized urban element, an enclave that has multiple interior subdivisions that can hold conflicting urban activities in the same place at the same time (often in section). It is an important place for urban experimentation and change, handling non-conforming urban activities and contributing to the overall ability of the city through its capacity to host change (Shane, 2011).

Shane (2011) further indicated that heterotopia was borrowed from French philosopher, Michael Foucault’s writing that pointed at prisons, hospitals, clinics, asylums and courthouses as heterotopias of deviance that help to give birth to modern city by removing people who were ill, could not work or did not fit in the city, accelerating the shift to modern, efficient industrial society.

Throwing more light, Foucault (1979) indicated that, heterotopia is a concept in human geography to describe places and spaces that function in non-hegemonic conditions. These are spaces of otherness, which are neither here nor there, that are simultaneously physical and mental. Over the years, a dazzling variety of spaces have been explored as illustrations of heterotopia, including: Arab-Islamic architecture, environmental installations, libraries, museums, Masonic lodges, early factories, gardens, performance prototypes, women’s colleges, landscapes, gated communities, Buddhist sites, band rooms, pornographic sites, cybercafés, shopping malls, burial sites and the body of the vampire (Foucault, 1979).

The fourth thread the urban actors used in city transformation involves the ability of urban actors to reflect on their work, reorganize elements and transform models to fit local circumstances and time. This ability to reflect, adapt, discuss and change is very important to the continual creation of new urban forms and the adaptive reuse of older ones.

**The Architecture of Cities and Forms**

According to Curran (1983:5), a society is an active organism, always in the process of becoming, always in the process of change. So are the forms it creates, which at once express and support this dynamic process. The forms that societies have produced in past eras can be seen as records of distinct value systems. This is particularly apparent when there have been dramatic changes in value systems and the associated forms. Between the middle Ages and modern era, there have been three distinct approaches to the organization of the city. Referring to these as “orders” of organization, they have reflected changing value systems. In addition to expressing different modes of usage and different modes of human interaction, these orders also expressed different ways of relating to the natural environment. Of the three pre-modern orders, the earlier, the “closed” order, is associated with the medieval era (Figure 3).
A small number of cities (and portions thereof) built within this order remains intact today. The second order, the “structured” order, is found in Renaissance cities and their derivatives, the baroque and neoclassic cities (Figure 4). Heavily influenced by earlier Greek and Roman concepts, this order provided organizational principles for many of the cities we live in today (Curran, 1983:5).

The next order, the “pragmatic” order, is associated with the industrial era. This order is the basis of many cities in America (Figure 5).

The most recent order, the “open” order, is associated with the modern era (Figure 6).
The history of architecture is a succession of “spatial conceptions” [conceptions of spaces] (Siegfried, 1962) and that is because space can be defined in many manners. We can define it as a place where man sets in contact with the force of nature.

**Urban Actors and Elements in Spatial Integration**

As indicated by Curran (1983:5), in the many recent debates about the city, one point of agreement is becoming increasingly shared: that the true value of the city is not measured only in terms of its real estate, but also in terms of its use value, that is, in terms of how it affects people in their day-to-day experience. Much of our daily experience of the city occurs within the collectively shared public spaces, or the public domain. Not only does the public domain provide for most basic of the city’s functions, access, but it also provides for and contains many other functions and activities synonymous with urban life. These have traditionally been organized, such as markets and public festivals, as well as spontaneous, including everything from the promenade and the meeting of friends to the appropriation of spaces for play, commerce, and display (Curran, 1983:5). A major part of the urban experience is the experience of the public domain. In addition to providing for a variety of ways to get from one place to another, the public domain provides many spaces for a wide range of additional functions and activities. Both planned and spontaneous, these uses, together with access, provide what can be described as the “glue” that bonds people together as well as all the individual parts that make up the city (Curran, 1983:5).

**Elements of Urban Design**

The success of this paper is dependent on the introduction and use of urban elements in complementing urban design and development. Good urban planning and development, according to Shane (2011), recognized elements and transformed models to fit local circumstances and time. This ability to reflect, adapt, discuss and change is very important to the continual creation of new urban forms and the adaptive reuse of old ones. Shane (2011) further indicated that, the last 60 years has been a period of enormous changes. Global European empires broke down into independent nation states dominated by two superpowers of the Cold War from 1945 to 1991 (the USSR and the USA). In this period, America and Russia urban models had a privileged status. The Russian urban model focused on the metropolis at the heart of empire with satellite states and cities that were miniature clones of the original. The American model involves the megapolis, a linear network of cities, originally linked by rail and coastal plain, but then cemented together into a network city by highways and the mass ownership of automobiles in the 1969s (Shane, 2011).
The connecting links tied together, the economic centers of America. The Abuja urban development has not connected and linked the city. It has not found ways of creating architectural and urban design mechanisms that can encourage and promote private economic developments within the existing Abuja urban poor settlements. It has not encouraged developments that will complement the existing structures and facilities rather it encouraged destroying them by the use of unqualified urban actors, poor implementation of the Abuja urban development laws and the Master Plan. It has not recognized, according to Catanese and Snyder (1997), that urban design is primarily concerned with solving problems. That urban design brings into focus problems of aesthetic in the urban context and also, concerned directly with problems of the quality of urban life and the way the city functions. Considering how the city functions, this paper looked into New Urbanism that indicated that, various current movements in urban design seek to create sustainable urban environments with long-lasting structures, buildings and a great livability for its inhabitants. It equally looked into settlement patterns in Abuja that should have considered urban design principle, dealing with, and the density of the communities, circulation patterns and expansions, open spaces, parks, decongestions of the settlements **with the use of high rise (4 to 6 stories) buildings**. Retention of the settlement areas and introduction of high rise buildings with economic options will attract growth and economic independence in especially, the urban poor areas (7 - 10).

**Plate 7.** Utako settlement area  
*Source: Obiadi (July 2017)*

**Plate 8.** Utako settlements area  
*Source: Obiadi (July 2017)*
Plate 9. Utako settlement area  
Source: Obiadi (July 2017)

Plate 10. Utako settlement area  
Source: Obiadi (July 2017)

**Recommendations**

The focal point of this paper was to identify a noticeable new phenomenon or rather the emergence of a new dimension in urban poor housing (settlements) in Abuja, the Federal Capital Territory of Nigeria, characterized by the invasion of the formal residential (housing) areas of the city by the informal settlements of the urban poor. As a result, it recommends, linking the urban poor settlements areas (urban elements) with the city urban economy and improving on their physical or built environment. It recommends retaining the urban poor settlement areas in their current locations and sustainably, **spatially integrate with the central city infrastructure** that would architecturally bridge the gap (spatial solution) between the urban poor settlements (place of abode) and place of work.

It recommends adopting urban design principles, dealing with the density of the urban poor settlements, the aesthetics, urban amenities, well defined means of circulation, functional parks, how the urban poor settlement areas function and decongestion of the areas by building high rise (4 to 6 story apartments). The buildings would embrace facilities for factories and industries (commerce) on the lower floors, where the residents would be gainfully engaged in economic activities while they live on the upper floors.

**Conclusion**

The functionality of the retained, urban poor settlements will depend largely upon the handling of the above urban design and architectural components and other amenities. The settlements must, function and perform, all the functions and activities of any successful city, embracing businesses, government facilities, education, commerce, industry and production, entertainments and a list of others. According to Catanese and Snyder (1997), there are also the physical elements of the city: buildings, roads, and landscape, and their arrangement and quality. These are the ingredients that can create amenity. The public park that commands view of water, or a hill, valley, or plain, is itself, an amenity. The business district that brings people of like interests together, conveniently with access to shopping, restaurants, services, and places to rest, is an amenity. Buildings that provide protection from the wind and reflect sunlight into open spaces on cold days are amenities. We expect to be able to find a place to
eat or drink when we come out of the theatre without having to drive or walk several miles. We expect to be able to stand out of the wind, sun, or rain while waiting for a bus, taxi, or car. We expect to find a place to go and celebrate when our team wins. We expect to have a place to take friends where we can sit comfortable and visit informally. In short, we all, individually or collectively, have a list of expectations that we hope to be satisfied in the environment. Urban amenity can be measured by how well these expectations are met Catanese and Snyder (1997), the problems of Abuja that resulted from the use of unprofessional Urban Actors, poor implementation of the Abuja urban development laws and the Abuja Master Plan.

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