How improve Community life with social Architecture

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1 Introduction

The world´s urban population has soared from 2,6 billion (45 per cent of the whole) in 1995 to 3.9 billion (54 per cent) in 2015. With urban populations expanding at unprecedented rates since 1996, it is perhaps unsurprising that many cities are falling short in housing supply. The estimates show that there are 881 million people currently living in slums in developing country cities compared to 791 million in the year 2000 - and all the while the enabling approach has been in force. By 2025, it is likely that another 1.6 billion will require adequate, affordable housing. This should come as a wake-up call to governments, urging them to act determinedly to enable acces to housing for all urban residents. (Un-habitat, 2016)

Throughout the world we find numerous areas where precarious housing constructions are being developed, which foment poverty and poor living in the community where they are placed, most of them are located in developing countries due to lack of resources and infrastructures they have, Some of those countries are in Africa, a region that fights against poverty, diseases, malnutrition... etc.

The first step to start dealing with all these problems is the creation of an atmosphere, where the population feels comfortable, that is to say where a space is created for people to relate to each other and begin to develop a sense of community .

This step is complicated, and is not achieved overnight, but one of the fastest tools is perhaps the social architect, who is able to change the environments in which they live and transforming them with projects that revitalize their inhabitants. These projects could be social housing, schools , hospitals, community centers, etc…

Burkina Faso is one of those countries, where the tradition and its customs have been wrapped up in the hands of the social architecture of Francis Kere, providing with their projects atmospheres of feelings of community.

2 Literature Review

2.1 How is the life in African Communities and their common traditions

Since culture is often seen as the sum total of the peculiarities shared by a people, a people's values can be seen as part of their culture. In discussing African culture and values, we are not presupposing that all African societies have the same explanations for events, the same language, and same mode of dressing and so on. Rather, there are underlying similarities shared by many African societies which, when contrasted with other cultures, reveal a wide gap of difference.

The culture of a people is what marks them out distinctively from other human societies in the family of humanity. The full study of culture in all its vastness and dimensions belongs to the discipline known as anthropology, which studies human beings and takes time to examine their characteristics and their relationship to their environments. Culture, as it is usually understood, entails a totality of traits and characters that are peculiar to a people to the extent that it marks them out from other peoples or societies. These peculiar traits go on to include the people's language, dressing, music, work, arts, religion, dancing and so on. It also goes on to include a people's social norms, taboos and values. Values here are to be understood as beliefs that are held about what is right and wrong and what is important

in life. A fuller study of values rightly belongs to the discipline of philosophy. Axiology as a branch of philosophy deals with values embracing both ethics and aesthetics. This is why philosophical appraisal of African culture and values is not only apt and timely, but also appropriate. Moreover, the centrality of the place of values in African culture as a heritage that is passed down from one generation to another, will be highlighted. We shall try to illustrate that African culture and values can be appraised from many dimensions in addition to examining the method of change and the problem of adjustment in culture. Here we hope to show that while positive dimensions of our culture ought to be practised and passed on to succeeding generations, negative dimensions of our culture have to be dropped in order to promote a more progressive and dynamic society. (Gabriel E.idang, 2015)

Aziza, in The Relationship between Language use and Survival of Culture: the case of Umobo youth",asserts that:

"Culture…refers to the totality of the pattern of behaviour of a particular group of people. It includes everything that makes them distinct from any other group of people for instance, their greeting habits, dressing, social norms and taboos, food, songs and dance patterns, rites of passages from birth, through marriage to death, traditional occupations, religious as well as philosophical beliefs."

It is part of the African world-view to treat the environment in which a person himself with respect: the African cooperates with nature and does not try to conquer it. There were taboos against farming on certain days as a way of checking the activities of thieves who may want to reap where they never sowed. It was against the custom to cultivate on certain areas of the community or even fish on certain streams for some time. This system, whether it was founded on myth or not, had a way of preserving and conserving nature. Thus, whether consciously or unconsciously, the society was guaranteed an increase in agricultural productivity, which was the mainstay of the traditional economy. Today, with the violation of those customs and myths, we suffer low agricultural productivity and denuded farmlands because the traditional values that safe-guarded the land, have been watered-down and we do not have the technological know-how to replace these beliefs that have been abandoned. (Deborah Fahy Bryceson, 2010)

2.2 The lack of infrastructure and accessibility in rural areas

The spatial distribution of populations and settlements across a country and their interconnectivity and accessibility from urban areas are important for delivering healthcare, distributing resources and economic development. However, existing spatially explicit population data across Africa are generally based on outdated, low resolution input demographic data, and provide insufficient detail to quantify rural settlement patterns and, thus, accurately measure population concentration and accessibility. In Africa, 90% of the population is concentrated in less than 21% of the land surface and the average per-person travel time to settlements of more than 50,000 inhabitants is around 3.5 hours, with Central and East Africa displaying the longest average travel times.

Geography plays a significant role in the development process . Three spatial features influence the economic development of a region: the density (e.g. agglomeration, scale economies), the distance (e.g. spatial mobility and access) and division (e.g. the spatial integration of economies). Improving access to people and markets is a key driver for development and plays an important role in poverty reduction.
Development among rural populations depends on access to markets for buying and selling goods, to water and fuel, and to various social and economic services such as education, healthcare or banking and credit . The lack of a reliable transport system forces rural populations to spend a significant amount of time in travelling to meet basic needs and increases the transport costs incurred to access these services . These factors often mean that isolation is seen as the main contributor to poverty according to the poor people themselves . The proximity of a major settlement provides business for isolated populations, and connectivity with international and regional markets creates economic opportunities. (Catherine Linard, 2010)

2.3 African Communities and Urbanization :

For centuries now, every society has produced the housing it needs, naturally and indigenously:
In most of African cities, the conditions of the poor are truly appalling. It is not just the poverty itself, but the particularly degrading and de-humanising patterns of urban poverty that have come into being-and that we tolerate. obviously there is a brutal mismatch between the way the cities have been built and the way people are compelled to use them. Families living in the tradicional towns and villages are much poorer and often have no more than one room (this is happening too in other parts of the world as in India). This is augmented by access to what in that climate and culture is an incredible resource: open to sky space. (Laurence Chandy, 2015).

 The migrants are not coming to the cities for housing, first for jobs. so they have to locate in places which are near , or which have access to public transport systems which can take them to those jobs. This is why so many go them live on the pavements, or in illegal squatter settlements, right around places of employment, and along railways lines. And this is why the public transport system has got to be such an essential factor in deterring the form of our cities.

The problem of housing the vast majority of our urban population is not one of budding technology, it is more a problem of optimizing densities, of re-adjusting land use allocations. For example in India there is no advantage to that pattern of housing that may prove to be the most decisive of all, and that is because of Equity. Today the amount of urban space one controls is directly proportional to one status income, it has no connection with actual family size.

Now the room has a production cost, as does the courtyard. The point of trade-off between these two variables helps determine the optimal pattern of housing.
This is really tragic since increasing the housing on each site doesn't save much land for the city, for low-rise housing can be built of much cheaper and more readily materials, and with the participation of the people themselves. Today, the builders in our cities are turning

out a product that only the middle and upper income groups an afford, forcing half of the population into squatter settlements.

3 Argument, Critique or Discussion

3.1 How design could solve social problems:

There are different opinions on the relationship between design and social life. Architects and urban designers whose work is creating physical space believe that design affects our social life. The existence of a sign or landmark in the middle of a city would make people find orientation easier , a lively atmosphere on the streets in the city can be created by designing the building´s facades to match the walking speed of pedestrians .
On the other hand, many social scientists believe that social dynamics play a role in shaping the physical space. Thus, suggesting the idea that social space influences the physical space. How people spend their time moving from real space into cyber space is a proof that life style impacts space usage. However, it is clear that both design (physical space) and social dynamics influence each other and the interaction between them comes as a two way process, where design can shape our social life and vice versa.

One of the applications of spatial-social relation is how designing of a gated community plays important role in increasing or decreasing segregation, both spatially and socially. According to Johnston et al in Firman (2004), spatial segregation refers to the residential separation of sub-groups within a wider population which could be associated primarily with racial groups, ethnicity, religious beliefs or income status. This segregation could exist between housing estates within neighborhoods, between urban neighborhoods, and between cities and its surrounding areas.

Due to all these problems that exist in these type of communities, they have attracted the attention of certain architects who have decided to dedicate themselves to the improvement of these developing areas. One of these architects is Francis Kere, an architect considered an example in the creation of buildings in these rural areas, and one who to begin to recover the sense of community and improve the lifestyle of the inhabitants through the realization of a series of architectural projects, that, although not very flashy and complex have achieved the purpose for which they were made. Their architecture hugely benefits

the society in which they are inserted. His work is reminiscent of the original constructions, when they were used to cover the basic needs of human beings, to protect themselves from rain and weather conditions. All this is done starting from local materials and with scarce resources, reaching a high degree of aesthetic beauty in projects that prioritize the functional.

4 Urban Shelter Design

In 2001 he Francis Kere designs a school project as the first building of his proposal. The project consists of a large rectangular light roof, under which three blocks of classrooms are located, separated from each other, creating recreational or teaching spaces outside protected from the sun. The materials used were those of the area and the labor was provided by the inhabitants of the town. Both the enclosures and the roofs of the classroom modules are made of an indigenous stone called laterite, and its extraction and placement was carried out by the inhabitants of Gando who were first instructed how to do it. The cantilevered metal roof was made by local blacksmiths, and wood is used only in some specific places, because of its scarcity and its vulnerability to the attack of termites. Children helped by moving stones and women carrying water.

The project is not limited to locating a school module, but it adapts to the conditions of the place to create pleasant spaces. The main objective of the project is to adapt to the climate of Burkina Faso, creating a building that does not depend on fossil fuels for cooling. In this way, the large cantilevered roof provides pleasant shadows in the exterior spaces of the room; the metal blinds allow different types of openings to let in light and air according to the season; the orientation is east-west, so that the direct insolation of the walls is reduced; the roof of the classrooms is permeable, so that air currents are produced to ventilate the closed modules.

The project was completed in 2007 with the expansion of the school with another L-shaped module, but with the same constructive language: light cover, local materials ... This new module houses three new classrooms, offices and an outdoor amphitheater under the oval-shaped cover, which serves as a point of rest and conversation during breaks.

After the success that the project of the school had within the community, Francis Kere still wanted to contribute to his community, therefore he began to build an extension of the school itself while also building a library for all the young people of the town not only the students of the school, also the expansion is also thought due to the growth of the number of students who also come from surrounding villages.

This library is projected as an extension of the school itself in addition to creating a new roof to protect the school from dust and wind.

the materials used are the premises, where the land of the area is the most important, this is pressed and blocks are made with which the walls are then built.

the shape and geometry of the library is different from the rest of the buildings in the school complex, Francis decides to establish a form that refers to the typical traditional constructions of his people.

The intention of the space is to mesh traditional tribal teaching methods between elders and children with the more standardized learning environment of the schools.

The School Library ceiling makes use of a widely-recognized handicraft in the form of locally produced earthenware pots. Traditionally hand-built by the women of the village, the clay pots were sawed in half and then cast into the ceiling. These circular openings create a playful pattern and introduce natural light and passive ventilation in the interior spaces.

An overhanging corrugated iron roof sits above this ceiling, protecting the interior and surrounding spaces from sun and rain. The stack effect created by the hot metal surface draws cooler air in from the windows and out through the perforations in the ceiling, providing a passive cooling strategy without the use of electricity.

It is also possible to create a shaded and protected study area thanks to a lattice created with eucalyptus columns.

These projects have meant a revitalization not only of this town, but of the surrounding villages, where all the people are really satisfied with the results and how their life has changed since then.

Since most people in the village have been working on the project in one way or another they feel the result as their own, for this reason the satisfaction generated is much greater, life in the community has changed a lot after the construction, since It has also provided the people with a meeting point, social union and community feelings, where they can share all thoughts and ideas, all thanks to the fact that Francis were very aware that the comfort of the space should be very important, where shadow, cleanliness and air movement were fundamental.

We could say that community work in this case has been very important, not only to be able to carry out and build the projects with the low budget but also it has created a social cohesion in the community that is very important for its future development.

5 The Role of Architects

As architects we must take into account that our work is to create spaces and habitable places that are comfortable for people's lives, this also includes the realization of moral judgments, it is not necessary to design a skyscraper to be a great architect, but rather know how to give the society what it needs in each moment and each place to calm any type of social conflict or improve life in different communities.

That is why, from my point of view, Francis Kere is such an interesting architect, he knows exactly what he has to offer his own people to develop a series of small-scale projects with such a significant change in the life of the residents, it is also very important how all the development takes place, where from the beginning he collects enough money being able to provide the town where it has grown with some advantages that to most of us seem normal resources (as is a school) , but the lack of resources in these rural areas makes them privileges for these people, and therefore not found so easily.

Another great job that the architect does is to get the whole community to revolve around the project, intervening in some way, which means first giving building knowledge to the community so that they can even develop small projects by their own thanks to what they have been learning, but above all the most important thing is the feeling of fulfillment that these people feel toward what they have been able to build with the effort of all, they will feel this project as their own and therefore they will know how to maintain, take care and protect all of it.

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