

1.0 INTRODUCTION

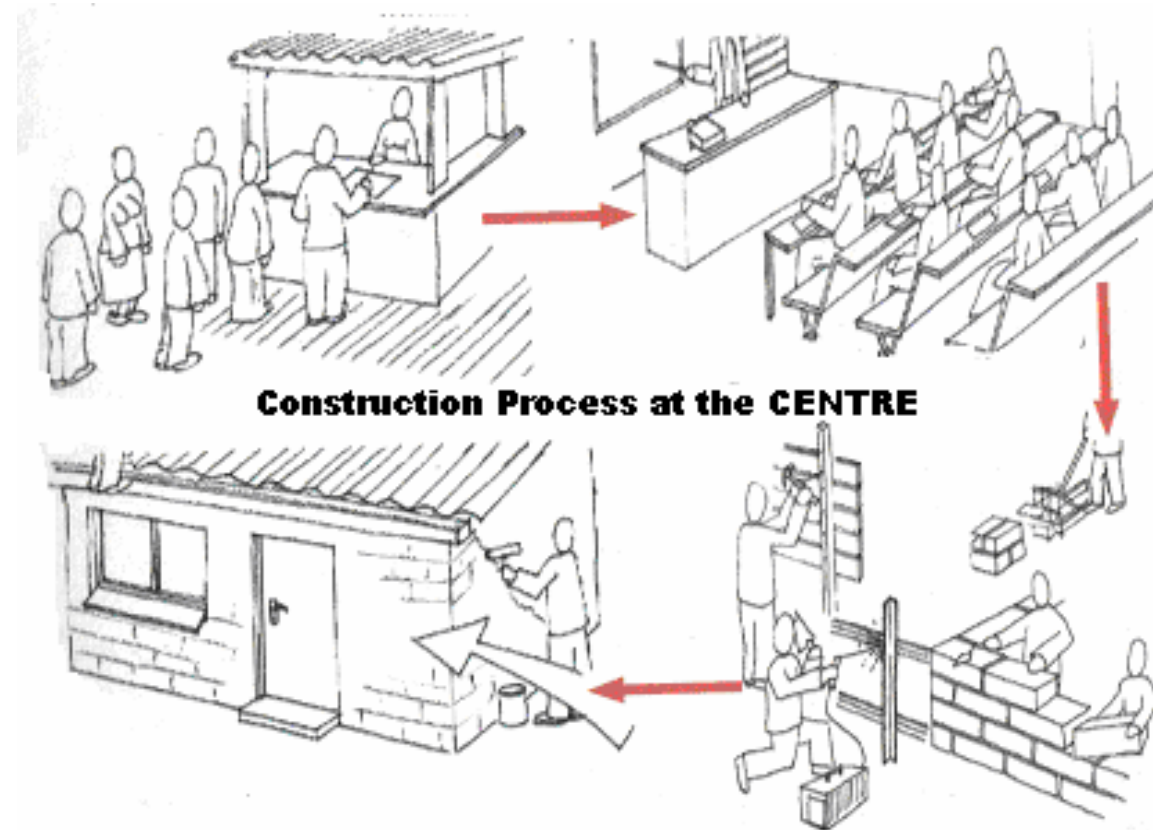


Fig.1: Community Development Process (Araujo, 2004:70)

1.1 BACKGROUND

The design discourse, the training and research development centre in the arts, crafts and building skills is a formal proposal for the site situated on the corner of Hans Strijdom Drive and Hinterland Drive Street, on the Mamelodi campus of University of Pretoria in Mamelodi precinct of Tshwane Metropolitan.



Fig.2: Aerial map of the site. (Tshwane Metropolitan Council, 1999).

The chosen site would be ideal for the proposed design, because it is currently an open space and is owned by the client, University of Pretoria. It is also ideal in that Mamelodi Township is one of the largest sources of construction workers and has one of the highest populations in the Tshwane Metropolitan.

It is also the purpose of the Centre to provide skill training in construction to unemployed, and those individuals who exhibit talent and skills in arts and other craft related works, individuals who do not have financial support or the opportunity due their background. It will also provide research development in construction methods and innovative materials in construction industry for small enterprises and poor households in the local community.

The construction industry is in its widest sense, its whole infrastructure, not only the materials and people on the building site, but also the companies that quarry the raw materials, the transport companies, the processing and manufacturing companies that produce composite building materials and standardized units, the architects and engineers who design the buildings, the team in construction management and cost control, the finance companies that inject capital and speculate through property, and the government bodies that affect the industry (Strike, 1991:1).

The construction industry is also one of biggest employers in this country. The skilled and technical people that the industry employs, come from tertiary institutions and technical colleges where the entry requirement of a post – secondary school certificate. The majority of population is left without technical skills which they need if they are to contribute to ever-growing construction industry.

In the new democracy, local applied arts and crafts skills are being used in major architectural projects as a symbol of national identity thereby increasing the need of more artists and craftsmen/women in the local construction industry.

Most of the unemployed are illiterate and unskilled. They range between the productive ages of 18-40 years. They are often found in the townships poor informal households. Some of these unemployed

are good natural craftsmen/women who have never been to (technical) schools. Due to the political history of the country and poverty, they have been left without the necessary exposure or skills the manpower needed in construction industry thereby increasing skill shortages and unemployment.

If these people get the necessary skills, they will be able to support themselves and their children (education) thereby reducing illiteracy levels and unemployment in the next generation.

In this country, the issue of housing people is very closely coupled with job creation and economic upliftment within the user communities. However, the high level of lack of skill and unemployment among people results in a problem of proper housing. Housing is a basic human need, but it is beyond the means of the low – income households and the unemployed who constitute the majority of the population.

The low-income households spend 90% of their income on their basic needs such as food and clothing and they only save 5-10% for housing. As a result, they are not able to afford to build proper houses even with housing subsidy offered by the Government at present. They need other sources of income or means to enable them to complete their houses.

The problems are increased by the way informal housing (shacks) is mushrooming in every city and towns in the country, the government alone can not manage to provide suitable formal housing to all citizens. It is these low –income households that contribute greatly to the economic development of the country with the labour services they provide, hence, their housing needs should not be accepted as only state responsibility. The private sector (construction industry) contribution is vital in this case.

Osman and Hindes (2005:58) argue that the dominance of state in housing delivery has seen limited intervention by other potential role players so much that designers have distanced themselves from such ugliness of housing environments. They further say that, any housing programme that only deliver house units are doomed to fail. Housing

delivery need to be combined with mechanism for the community upliftment, job creation, capacity building, empowerment and public utilities.

Therefore the involvement of construction industry in particular institutions like University of Pretoria in housing delivery, is a welcome development. Dewar in his Keynote address, 33rd World Congress of Housing cited in Osman and Hindes (2005:58) explains how the institutional mechanisms developed during apartheid have not adapted well to becoming mechanisms of development.

Dewar (1998:370) further added that although the legislative obstacles were removed in 1994, operative barriers to the delivery of sustainable housing still remain and he is optimistic that the new policy approach (Breaking New Ground, 2004) will prove to be ground breaking. This is if only new partnership is set in place for effective implementation as it will be seen at the Construction Centre by the University of Pretoria.

Currently the Peoples Housing Process (PHP) is one of the programmes for housing delivery in South Africa. The Peoples Housing Process (PHP) is a form of housing delivery in South Africa that depends heavily on community initiative and beneficiary involvement in its delivery process. It makes use of subsidies provided through the Department of Housing. Though instead of an established developer producing the housing on behalf of the beneficiaries, the community drives the construction process, and at the same time local jobs are created and there is development of skills.

Ramasodi and Van Bergen(2005:10) in their paper to the 33rd World Congress of Housing summed up the PHP delivery system by observing that while the programme has addressed short term housing needs, self build, or community build is essentially problematic. The “one off” subsidy invested in a structure built by unskilled and semiskilled labour is inappropriate given the need to build sustainable communities. The design and quality that can be achieved with the help of welfare associations together association with professional design and construction teams far outstrips what can be achieved by beneficiaries and semi skilled construction teams.

The idea that beneficiaries will gradually improve their homes over time seems unlikely given the fact that almost all beneficiaries in the programme are unemployed or earn R1500 or less per month. Given the gradual rise of unemployment in the country the serviced site/ self-build programmes actually create slums and the subsidy spent in these programmes is merely dead capital.



Fig.3: Subsidised house at floor level with a shack (informal housing) besides it, creating a slum in Mamelodi (Author).

Ramasodi and Van Bergen (2005:10) concludes by saying that a comprehensive welfare system is the only way to guarantee that the poor and unemployed do not remain marginalized and have the opportunity to become part of the broader economic cycle.

This is one of the concerns the Centre will be dealing with in that it will provide both good technical know-how (skills) in construction and an additional source of money to the beneficiaries who will then be able to easily build their own houses.

“Opportunities for skills transfer and development need to be created and provided to ensure the involvement of poor communities in shaping their own future. Therefore the construction industry has ability to shape and change the future of our country and its people.” (Agenda 21:2002).

1.2 STATEMENT OF THE PROBLEM

The above concerns form the basis of the investigation for this dissertation. It has been shown that poor communities in South Africa

need to have access to skills; and this would encourage the rest in the promotion of social, economic and environmental sustainability which are crucial to the positive development of the country.

To help address the above issues, the proposed intervention will contribute to community empowerment through the provision and design of Construction Centre. The main emphasis of development is geared toward providing information and technology transfer on construction practices. It is also geared towards, housing support and job creation initiatives that use innovative building techniques, arts and crafts, in order to develop the informal industries to small-medium enterprises and to sustain the relevant capacity of individual beneficiaries of the subsidy programme.

ART AND ARCHITECTURE

Architecture and art cannot become independent from one another because art and sculpture as well as other crafts are considered as enhancement to the buildings, all working together towards common expression rather than being masterpieces in themselves.



Fig.4: Mosaic on Ndebele traditional house (<http://www.museums.org.za>).

TRADITIONAL AND WESTERN MATERIALS

Most of informal dwellers are from rural areas or have roots in the rural areas. They have skills in traditional house construction and community

participation, such that using their skills in modern materials and skills will be an innovative way of improving the informal settlements.



Fig.5: Building with stabilized interlocking adobe bricks, Orange farm, Johannesburg, South Africa (Photo by author, 6th April, 2005).

1.3 AIMS OF THE PROJECT

The above concerns form the basis of investigation of the dissertation. The need for poor communities in South Africa to have access to facilities; encourages and promotes social, economic and environmental sustainability which is crucial to the positive development of our country.

The proposed intervention will attempt to tackle the above issues by contributing to the community empowerment through the provision and design of Construction Centre. The main emphasis of development is geared toward providing professional information and technology transfer on construction practices, housing support and job creation initiatives using new building techniques, arts and crafts to the community.

The project will also provide a framework for the development of infrastructure of the intersection node to enhance commercial and traffic activity. This is in order to create greater income whilst generating opportunities and the physical and psychological enrichment of the community around the centre.

1.4 ACCOMMODATION REQUIREMENTS

The design of the Construction Centre will consist of the following:

- Exhibition hall to exhibit products from the centre and for a number of activities like dances, social functions.
- Formal trading stalls to provide space for traders to sell their goods made at the centre. Ablution facilities for the public.
- Administration facilities for general information about the centre, offices, workshops for practical training and working.
- Arts and crafts studios.
- Pedestrian movement to and fro the site.
- Construction yard and re-use /cycle yard.

1.5 PROGRAMMES TO BE IMPLEMENTED.

INFORMATION AND TECHNOLOGY TRANSFER

The intervention will provide the community with access to appropriate information and skills training programmes. These will include workshops on various building methods, techniques, effective recycling and re-use of waste products. The facility will also include an advice centre where all needs, request, and problems of the community will be addressed.

SUSTAINABLE BUILDING AND PRACTICE

By making the community aware and conscious of their everyday actions as to how they affect the lives of others and the natural environment surrounding them is vital for sustainable development. The goal is to provide prosperity for all with the least possible impact on the environment and without compromising the needs for basic human rights.

The facility provided must be the main vehicle to create awareness towards sustainability (socially, economically, and environmentally), and it must also ensure that these values are instilled in all members of the targeted community.

HOUSING SUPPORT

The proposed facility will provide information and assistance to the community. This will be done by providing new house designs, upgrading and maintaining the existing ones as well as tackling issues regarding settlement planning and design. Planning, designing and guidance on various housing options including alternative methods and techniques will be incorporated into the activities of the Centre.

JOB CREATION

Helping the community to develop their existing skills and to learn new ones is crucial in enabling job creation and economic growth. The majority of the activities are aimed at community empowerment through the transfer and sharing of various construction, building skills, arts, crafts, and creating work from the waste.

All the programmes and activities will encourage and promote participation from a diverse multitude of people including professionals, the unemployed, the aged and the youth.

1.6 GENERAL OBJECTIVES.

The objective of this thesis is to design a building that will:

1. Enable the community to experience art and craft activities used in the construction industry whilst and participating in them. By creating different types of workshops with varied open spaces, the centre should be a place for both fine and applied arts and crafts for the public, while serving as a gathering place.
2. Create space for local artists and craftsmen/women so that they can express their talents and pass them on to young generation. This will ensure that the culture and skills will not die

or be forgotten. The Centre will enable unskilled people to have basic education in technical skills and learn to create arts and crafts for the construction industry and their own homes.

3. Be used for research and exhibition for arts and crafts used by the construction industry. It will also be used by education institutions for the research development of arts, crafts and building technology into local architecture.
4. Have a demonstration facility that will experiment with the building methods, that will re-use /recycled materials, buildings (experimental buildings), arts, crafts and buildings using alternative material and methods. For example the use of cement and steel in crafts and sculptures.

1.6 GENERAL ASSUMPTIONS

- The Tshwane City Council will give permission approval to the development framework, design and erection of the Construction Development Centre on the site chosen
- The members of construction industry through the Construction Industry Development Board (CIDB) will assist the University of Pretoria to fund the construction and utilised this facility with the participation of the local community of Mamelodi. The partial operation cost after completion will be funded through selling of artistic work and crafts and the use of the facility by the construction industry and other education institutions.
- Education institutions will incorporate 'learn and build' workshops, and programmes for students involved in the built environment as a module for part of their studies.

1.7 RESEARCH METHODOLOGY

METHOD USED FOR THIS STUDY

It is only through understanding and working with the community that one can formulate his /her own perception regarding the state of affairs within specific a community. Therefore, the Descriptive Survey and the Historical method will be the form of research method to be used to conduct investigation and gather data:

- The history of Mamelodi was obtained using historical and literal data.
- The Descriptive Survey method was used to set up questions regarding the immediate community needs and requirements surrounding the proposed site, together with personal investigation gathered from experiences ion the site and surrounding areas.
- The Descriptive Survey method was used to determine the availability of small scale enterprises and waste resources.

LIMITATION OF STUDY

The limitations of the study include:

- Time constraints affected the collection of data on the community. Hence, there will be assumptions made regarding the community needs and requirements.
- It was difficult to get Development frame work for Mamelodi and the area of study as a result the development framework for the intersection was based on the immediate needs, problems and requirements of the community.