The project challenges the meaning and making of a sustainable building. The value system of most of the members of the community is a traditional one, but is influenced by aspects of modernity. This worldview differs dramatically from the post-modern “green” perspective, in which buildings rely on green technology to achieve sustainability. Thus the key question is how to make a building that responds to both the environmental and socio-economic issues of sustainability: a building that, in the words of Tsoga supports their goal to “promote a new kind of perspective amongst South Africans which demonstrates the concept of environment in particular, demystifies the concept of environment in disadvantaged communities.”

While construction offers an opportunity to address poverty and unemployment, opportunities linked to construction are often temporary. This project generated a way of thinking about materials and systems that has short and long term benefits for the community. Sustainable materials, systems and labour should be used to support the transition to sustainable livelihoods. This involves reducing energy use and make architecture of place. However, Samora Machel has free locally harvestable raw materials and people lack skills. The design of the building is used as a generative process to create jobs, improve environmental comfort and nutrition, while at the same time responding to local knowledge of building systems, and particularly the activities of Tsoga: recycling and greening. Thus a palette of materials that can be grown in the community (poles, latte and reed) and accessible demolition waste (treated bricks, cementitious waste, scrap metal) informs the form and structure of the building and drives job creation and skills transfers.

This is the basis for achieving a vision of a community self-sufficient in environmentally sound building materials, equipped with construction skills and one that makes efficient use of natural and institutional resources as it develops over decades. Tsoga turns urban throughput systems into cyclic, regenerative ones and reintroduces diversity into the urban environment. It is a recycling centre and building waste will be recycled during construction. Rainwater will be harvested for flushing and greywater used for irrigation. Materials used are low in embodied energy, natural, renewable, healthy and non-polluting. They include recycled materials (treated brick floors and walls, crushed mortar as aggregate; reject polyethylene foam as insulation; scrap steel hanger bars and balustrades), bamboo treated poles and latte, timber floors and joinery from cleared invasive alien trees, natural timber coatings, reed ceilings, soil roofs and limewash. Passive design strategies minimise energy used for heating, cooling and lighting.

Traditional building used local materials and skills. Cape Town has few resources and the urban poor are unskilled. Conventional building imports materials and labour. Tsoga reverses this and shows people how to access and use sustainable materials and technology. It teaches people to grow timber in their community, to source recycled materials and use innovative detailing with such materials.

The building’s forms derive from exploring how locally available and grown materials can be used to create a building that draws on and develops locally known and accepted building techniques and skills, while responding to climate and the broad social context.

“We want a place that we can be proud of with jewels on the roof” – the spring flowers on the earth roof are living jewels.