Climate-responsive architecture is aimed at achieving occupant thermal and visual comfort with little or no recourse to non-renewable energy sources by incorporating the elements of the local climate effectively. Designing buildings that respond to their local climate significantly improves the building's internal comfort, reduces the energy consumption within the building and reduces the greenhouse emissions from the mechanical means that are the alternative to the passive design strategies.

The architecture of the post-independence Nairobi started from a point where the architects of the day were climate conscious and the built form of the time was climate responsive. With time, technological advancement and globalisation, the architecture has evolved to one that ignores its climatic zone which consequently affects the building's comfort levels leading to the architects applying mechanical means of archiving comfort within the buildings.

The mechanical means applied within the buildings require additional energy to run them which increases the building's running and maintenance cost significantly and the environmental impacts the use of mechanical means have. They produce greenhouse gases which have diverse effect on the climate of the day contributing significantly to climate change.

The purpose of this dissertation thus is to investigate the transformation of Nairobi post-independence architecture with emphasis on climate responsive architecture, establishing the changes in design that have occurred with time and their impact on the energy consumption.

Seven buildings constructed between 1960 and 2013 in the CBD were studied and data collected using interviews, observations and use of architectural drawings of the buildings. The information collected was then analysed using qualitative methods.

The study revealed that as the architecture is evolving so is the energy consumption by the buildings, it is increasing and consequently increasing the carbon dioxide emission to the environment.

The study recommends that architects design buildings that respond to climate, using the beneficial elements of nature to create comfortable, energy efficient, and environmentally wise buildings. It is only out of this that man will protect the environment and the available resources as he coexists with nature.