

EDITORIAL

Industrial Space Gentrification, Health Built Environment and Efficient Design of Road Pavement

Welcome to the Nineteenth Volume 3rd Issue of the Africa Habitat Review-Journal of the Faculty of Built Environment and Design. This issue has presented critically analysed papers on issues relating industrial space gentrification, health built environment and efficient design of road pavement.

The article on *Relaxation of Plot Ratio and Lot Size and the Triggering of Gentrification in the Industrial Area of Nairobi* examined the processes of spatial development plans and zoning policies and how they led systematically to gentrification in the industrial area of Nairobi. The key informants' interviews and field surveys were conducted to complement the findings. The paper established that gentrification in the industrial area of Nairobi is mainly policy-led through the rationalization of plot ratio and increased densities, which inadvertently led to opportunities in real estate development and other forms of land uses. The article recommended redevelopment of the industrial area of Nairobi through regularization to include mixed-use development and implementation of existing development plans.

Construction Timber Waste Management as a Circular Economy Resource: A Case of Affordable Housing in Kenya is an article that focussed on the inefficiencies and under-utilization of resources by construction projects. Timber is one of the key inputs for construction projects that if not properly managed results in project failure. This article adopted a cross-sectional survey design and targeted a sample of 73 project managers in six affordable housing projects located in Nairobi and its environs. Stratified sampling technique was applied by grouping the respondents as per project. A drop-and-pick later technique was used to collect data; thereafter appropriated statistical techniques such as regression and correlation were conducted to validate the hypothesis. The article established that technical, organizational, social, legal and environmental factors had positive influence on construction timber waste management in affordable housing projects in Nairobi. The article further established that proper community engagement especially employing the gender card in construction timber waste management contributed towards success and sustainable construction projects. The article recommended adoption of modular construction methods for mass production of affordable housing units, use of design visualization tools e.g. BIM, industry regulators such as NEMA and NCA to conduct capacity building programs on needs and methodologies for sustainable construction, promote gender equity on construction sites, enhance management controls for timber products procurement and finally legislation and enforcement of policies on accessibility and proximity to government recycling facilities.

Reduction of Thermally Induced Cracks in Asphalt Using Thermos-chromatic Pigments in the Asphalt is an article that establish the significance of adding pigment in the design mix of asphalt concrete by using thermos-chromatic pigments. Four samples of asphalt concrete containing paint, dye, neat and pigmented were prepared and its volumetric properties established. The degree in which each of the sample reflected away solar radiation was tested by exposing all the four samples to the environment under direct solar radiation and the amount of solar radiation that each of them absorbed were measured and recorded. The pigmented was mixed after test registered the lowest temperature change as compared to the other mix. The article recommends addition of pigment as additive at 25% of the bitumen weight and 25% pigments during the design mix of asphalt concrete to assist in reflecting away the solar reflectance of the pavement.

The article *Disaggregated Mental Health Enhancing Features of the Urban Built Environment: A Critical Interpretive Re-Consideration* focused on street setting elements and relooks at these measures at the elemental level to present a disaggregated analysis of what was being measured within these constructs. The article presented a causal loop diagram to tease out the interactions

between the elements to present an ecological perspective of the interaction between the elements and mental health. The objective of the article was through a critical interpretive synthesis to link the opportunities of enhancing mental health to the features of urban streets by generating a causal loop diagram. The article established that scale played a key role in the conceptualization of constructs and recommended use of the most practical lowest scale to allow a multi-scale analysis.

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