Conversion of a Garbage Dump Yard into a Landscape Recreational Park: A Study of Impact on Human Perception with Reference to the Meethotamulla Rehabilitation Project

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Abstract

Solid waste is one of the main global issues that arise due to the malfunctioning of solid waste management. It creates an adverse effect on environmental, social, and economical aspects of human wellbeing. Sanitary landfill is a proper solution on solid waste management (SWM) which results in closed landfills leads to implement landscape architectural interventions as a secondary use. Meethotamulla garbage dump yard is one of the main examples which can be identified as a newly implemented project which converts a dump yard into a landscape recreational park for the first time in Sri Lanka. The objective of this study is to identify the impact of this conversion on the human perception of the surrounding community within the micro context and the study will be a motivative study on the landscape architectural approach in Sri Lanka. Changes in human perception were compared according to past, present, and future conditions of the community by using 30 participants who were selected randomly. Participants were selected according to a residential location under limitations such as distance from the dump yard, residential type, and age group. Information processing theory, prospect-refuge theory, Berlyne's arousal theory, and theory of biophilia were used as the theoretical base for studying the impact on human perception (five senses) through a live interview. After analyzing data, the impact of the conversion on human perception has been affected positively by creating new landscape qualities and a comfortable environment. Initially, the Meethotamulla dump yard has changed the behavioral pattern of the community while leading to an increase in illegal activities, drop-in educational level, and stressful environment etc. With the development of the recreational park, negative impacts have been controlled and pleasant landscape qualities like calm, pleasing, picturesque, spaciousness, and openness etc. have been improved. As a result, coherence, legibility, complexity, imageability, naturalness, visual scale, novelty, and surprisingness are landscape concepts that have been encouraged. The physical and mental health of the community has been positively impacting and it will be continued in the future as well.

Keywords: Meethotamulla dump yard, Meethotamulla rehabilitation project, Solid waste management, Sanitary landfill, Landscape recreational park