

## AN ENVIRONMENTAL ADAPTIVE DESIGN OF THE ECLECTIC SET

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**Highlights:** Malaysia, like many other developing countries where building conservation continues to be a recent trend, facing some challenges with their historical building. A place characteristic and identity influenced by its tangible and intangible aspects of cultural and heritage resources becomes vital. An adaptive environmental design of street furniture named The Eclectic Set for Tronoh Town was created to reinstate the early tin mining industrial history and its unique living environment. The innovation of this street furniture is based on the genius loci of Tronoh Town including its building characteristics, the community living culture, planting typology, and climatic factors.

**Keywords:** *Building Conservation, Cultural Heritage, Environmental Adaptive Design, Street Furniture, Historical Landscape Design*

### Introduction

Street furniture is a combined term used for features placed on streets for variety intentions. It incorporates seats, traffic barriers, traffic signs, telephone boxes, post boxes, bollards, traffic lights, street lamps, car stops, taxi stands, open restrooms, sculptures etc. Street furnishings give vital comforts to people on foot by adding usefulness and imperativeness to the person on foot placement. They declare that people on foot are welcome and that the road is becoming a pleasant spot to be. These pleasantries give a helpful service to the person on foot and give visual detail and intrigue. Cultural heritage is often correlated with artefacts derived from previous cultural practices and may include natural and human-made elements. (Canizaro, 2007; Raj Isar, 2004). There are two types of heritage: tangible heritage and intangible heritage. The selected site, Tronoh, will show how the street furniture can form an adaptive environment design that blends into the cultural heritage of the Town, which are the strait eclectic style pre-war shophouses and its strong Chinese identity.

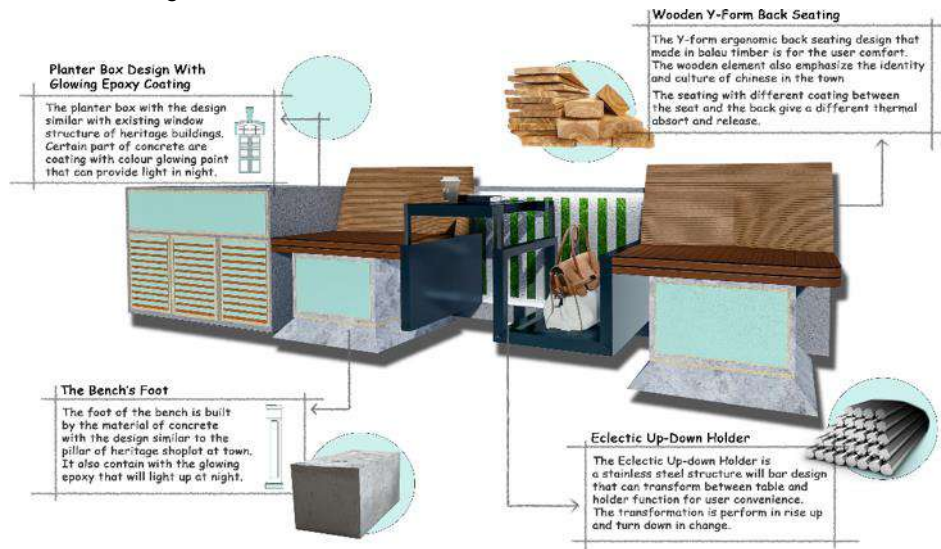
My innovative street furniture named The Eclectic Set combines a planter box, 2-person seat slot, up-down holder. The design challenge is how to create a brand-new design without any conflict with the facade of heritage shophouses and the living style of the residents. Before I proceed to the design phase, I have a site inventory and analysis to collect the data needed at the Town, including demographic data, climate factor, building's characteristics, street view, vegetation, etc. The questionnaire and interview methodology are helping me proceed into the next phase, which is the product of the design idea. The design I finalize emphasizes the method to implement the pattern and structure of different building's components into the street furniture.

Based on the components of the Eclectic Set, we can picture the street furniture designed according to the Town's physical structure, which is the heritage shophouses. The heritage shophouses can be defined into four components: the wooden folding window, iron bar window, galvanized iron folding door, and concrete/plaster pillars. There are many unique textures and patterns with the art deco style and strait eclectic style with the colour scheme of white, grey, pale blue, beige is implemented into the design of planter box and bench's support base. The backrest of the bench is formed by a curvy design for comfortable usage. The main materials of the furniture are balau timber, galvanized steel, and concrete. The seat part is made of balau timber representing the wooden material of buildings, and the identity of Chinese believes life connects nature with people. Concrete is used as the primary material of the furniture to form the adaptive climate design. Last, the galvanized steel is referred to as the iron bar window, and folding door implement.

The Eclectic Set is designed as one solution to face the Town's critical condition: the history and culture are forgetting and lost among the people. The Eclectic Set is providing an opportunity for youth and the elders to bring back their memory about the story of Tronoh town. Thus, it also involves a significant step in town rejuvenation to achieve the objectives to enhance the streetscape and raise the awareness of residents and outsiders to the town's importance. As a town with many institutions, including primary and secondary school, it will provide a good education opportunity to teach the students or youth to appreciate ancestors' contribution. On the other hand, they can also learn to recognize the heritage shophouses and components as the Town's treasure.

Furthermore, the Eclectic Set with unique design will become one of the popular instagrammable spots in the Town that can attract many foreign visitors who are getting news from social media or the latest news. The active tourism activity will provide a huge economic booster for residents to conserve and preserve the Town's cultural heritage. The commercial cycle will form a stronger bond and place attachment that will guide the residents to have a high awareness of the Town's preservation and conservation of cultural heritage.

Figure 1 show the 3D model and material of the the Eclectic Set.



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