The purpose of this paper is to examine the transformation process of facade design of shophouses in Phnom Penh, Cambodia. 85 cases were selected from the first and second Chinese district of Phnom Penh ranged from a diverse period of construction. We conducted field surveys and interviews with residents during the period between August 2013 and February 2014. Documentation was conducted through photographing, sketching and field measurements. The selected cases are analyzed according to three major elevation parts such as ground floor, the body and roof. In addition, main elements of facades such as columns, windows, doors, handrails, ventilation window and roof were analyzed to investigate the trace the genealogy of those elements. As a results, the facade of shophouse in Phnom Penh could be classified into three main types: traditional, transitional and modern facade. Traditional facade is the style that were introduced by the colonial government with a simple, flat, full–width window and typically built on with ground floor and first floor with a high pitch roof. The transitional facade is characterized by adopting additional balcony, ventilation window, flat roof and highly decorative doors and windows. Modern facade is categorized by clean facade, connecting balcony to form a circulation as well as to protect the main house from heat and rain. We conclude that the transformation of facade is due to the technological development, introduction of new architectural style and local materials that were available in the market. One of the most remarkable results of this transformation is to re-adapt the traditional facade that introduced by the colonial government for climate responsive and culture sensitive facades.