Spatial Distribution Characteristics of Color Steel Plate Buildings in Lanzhou City

Wang Jinmei, Yang Weifang, Yang Shuwen and Yan Haowen (China, PR)

Key words: Remote sensing; Color steel plate buildings; buffer analysis method; distribution characteristics

SUMMARY

Color steel plate building has the characteristics of beautiful appearance, low cost, light weight and fast construction speed. It is an important product in the rapid development of the city. It is widely distributed in urban villages, urban fringe, new technology development zones, construction sites and other plots.Its spatial distribution has obvious aggregation characteristics and regularity. This paper takes the four main urban districts of Lanzhou as the research area. Based on the 2017 remote sensing image and urban regional vector boundary data, the GIS platform is used to obtain the color steel plate building vector data by human-computer interaction interpretation, using buffer analysis method, spatial statistical method, etc, the spatial distribution characteristics of color steel plate buildings in the study area were discussed. The results show that the building density of color steel plate decreases with the distance from the Yellow River, which is consistent with the logarithmic model. As the distance from the city center increases, the overall decline, rising at 4-6km, 12-16km. The density of color steel plates in each street shows a strong positive spatial autocorrelation. Significant “low-low” streets are mainly distributed at the junction of Anning District and Qilihe District and the southern part of Chengguan District. Significant “low-low” streets are mainly distributed in the western part of Xigu District, the western part of Chengguan District and two townships in the south of Qilihe District. The Gongxingdun Street in Chengguan District is a “low-high” type. Studying the distribution law of color steel plate construction can effectively assess the degree of urban development equilibrium, and can avoid the disorderly expansion of urban land use, which has important reference significance for the future development planning of developing cities.