

## Rural Land Use Models

**Carl Sauer (1889-1975)** was an American geographer who developed a theory called “cultural history” which involved gathering facts about humans’ impact on the environment over time. He believed that agriculture had an impact on the physical landscape. Sauer studied the creation of the “cultural landscape” which included general geography, regional geography, and historical geography, and the impact that humans have on the environment, i.e., human-environment relations. Most of Sauer’s research was conducted in Latin America and less industrialized areas of the United States.

**Ester Boserup (1910-1999)** was a Danish agricultural economist who observed human-environment relationships. She challenged Thomas Malthus’ theory that population’s exponential growth would overcome agriculture’s geometric growth, thereby resulting in a starving population. Boserup believed that people addressing this challenge through technological change and the advancement of agricultural practices would feed an increasing population. In other words, although the rate of food supply may vary, the population never exceeds what the environment can sustain, because every time the food supply nears its limit, there is an invention or development that causes it to increase. Boserup developed her ideas in connection with traditional farming systems in Southeast Asia, but her ideas have been applied to global agricultural patterns.

**Johann Heinrich von Thünen (1783-1850)** was a farmer and amateur economist who studied the relationship between land cost and transportation costs in an isolated state. Typically, the closer one gets to a city, the higher the price of land. Farmers of the isolated state balance the cost of transportation, land, and profit, and produce the most cost-effective product for market. Consequently, von Thünen theorized that—based on several limiting assumptions—in an isolated state, a pattern of four agricultural rings would emerge around a city. Starting closest to a central city, these rings include intensive farming and dairying, forest, extensive field crops, and ranching.

