

Balcones Escarpment Geography

Between San Antonio & Temple, Texas, see if you can observe any difference in geography on the east and west sides of the train route. The variation may appear subtle, but the differences in geography signify important differences in natural resources that are available and the cultures of people on either side of the divide. The Amtrak route follows a huge crack, or actually a series of many cracks, in the earth's surface called the Balcones Escarpment.

Millions of years ago, shifting of the Earth's plates formed the Balcones Escarpment, which today serves as a dividing line between Texas' Coastal Plains and the higher, hilly Edwards Plateau. The jagged line of the escarpment winds across the Texas landscape from the Mexican border near Del Rio, through San Antonio, Austin and Waco. The numerous springs and beautiful cliffs along the escarpment have enticed people to build villages and towns throughout history, and many large Texas cities today are spread along this geographic line. In addition to readily available water, towns grew along the escarpment because they could take advantage of markedly different agricultural bounty coming from each side of the fault line. Some consider this the dividing line between the cotton country of the old south, and the cattle ranching region of the American West.

To the east, we see gently rolling plains. These fields of cotton, corn and other crops are underlain by thick, fertile clays which once supported wild prairie grasses. Groundwater is available only by digging very deep wells, and the water tends to be warm and slightly salty. If we look to the hills in the west, the soil is thin and rocky, supporting scrubby oaks and junipers – suitable for grazing livestock where they can forage on large ranches. Early Texas towns along the escarpment could draw from both the cotton and cattle economies while enjoying a dependable flow of fresh, clean water from springs.

The many fault lines that run across the Balcones Escarpment are astounding, and in places you can easily spot fractured rock layers. Cracks crisscross the limestone so thoroughly that areas can break off like flaky layers of a biscuit. Roads built through the hills near the escarpment require large retaining walls to hold the crumbling layers. Rainwater trickling through cracks in the rock has slowly dissolved pathways which are now beautiful caves. Many of these caves are open to the public in state parks and private venues.

For millions of years, the Balcones Escarpment has shaped the formation of the natural environment and the settlement of the state of Texas. The jagged cliffs of the escarpment augment the Texas landscape, house some of its most beloved natural features, and have spurred settlement and economic development throughout Texas' history.

Source(s):

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