

Earning the “Garden of the Gods” patch:

Over the next 60 to 90 minutes you will embark on a short hike through the park to experience the geology of the park for yourself.

Working in your crews, you can earn the “Garden of the Gods” patch (As seen on the front page). Use the information in this pamphlet and follow the program and map in the *Garden of the Gods – Trail to Discovery* Guide provided to your crew chief.

The requirements to earn the patch are:

- Read this document
- Complete the hike
- Work together as a crew
- Complete the questions and exercises

When you’ve completed the hike and answered all the questions in the *Trail to Discovery* Guide, please present it to the Blue Sky Tour Guide. Make sure you have the crew number and participants’ names on the *Trail to Discovery* Guide.

References:

1. Chronic, Halka. *Roadside Geology of Colorado*, 1994
2. *Garden of the Gods Park. Junior Ranger Handbook.*
3. *Garden of the Gods official website.*
<http://www.gardenofthegods.com>
4. *Garden of the Gods Wikipedia.*
http://en.wikipedia.org/wiki/Garden_of_the_Gods

Photographs by Brian Keating & Eduard Mostert (711 G4, 2009)

Blue Sky Adventures

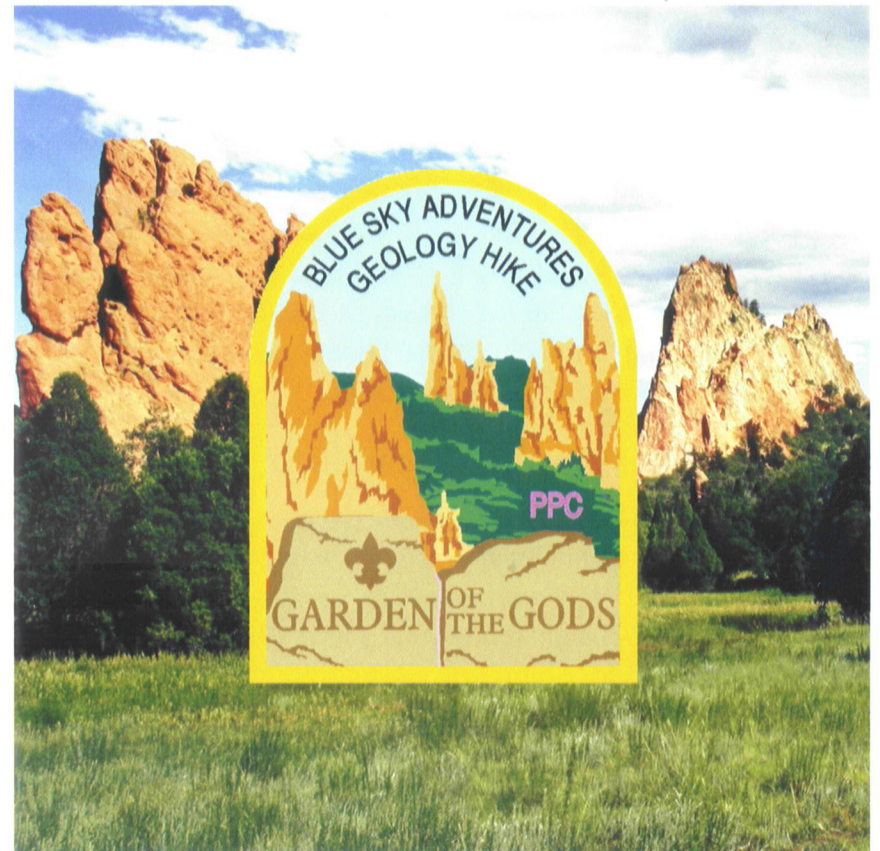
“The Experts in Philmont Travell!”



Discover the History and Geology of the Garden of the Gods

An Introductory Souvenir

Presented by Blue Sky Adventures



Welcome:

Welcome to the **Garden of the Gods**. The land for this beautiful park was donated to the city of Colorado Springs by the children of **Charles Elliott Perkins** in 1909. According to his wish, access to the park is free. The park is well known for its beautiful geological formations and the name "Garden of the Gods" is indeed fitting.

Name and Origin of the Park:

The origin of the name Garden of the Gods can be traced back to two surveyors that worked in the area in **August 1859**. When they discovered the site, one surveyor suggested it should be a "capital place for a beer garden". His companion, impressed by the rock formations exclaimed, "Beer Garden! Why it is a fit place for the gods to assemble. **We will call it the Garden of the Gods.**"

In the late 1879s, **Charles Elliott Perkins**, the head of the Burlington Railroad, purchased about 240 acres of land at the Garden of the Gods. He planned to build a summer home on the property. He later added more land, but decided not to build a house, but rather to leave the land in its beautiful state. Perkins died in 1907 and in 1909 his children donated the land to the City of Colorado Springs to be used as a park.

An Overview of the Geological History of the Park:

The rocks of the Garden of the Gods are all **sedimentary rocks** that formed from sediment deposits by wind, water or glaciers. Deposited in horizontal layers or strata, the rocks consist of **shale** (less than 0.002 mm in diameter), **silt stone** (0.002 to 0.063 mm), **sandstone** (0.063 to 2 mm) and **conglomerates** (from 2 mm to 263 mm – about an inch).

About **300 million years** ago the mountains in the area, aptly called the **Ancestral Rockies**, consisted mainly of granite (an igneous rock that formed from magma that solidified under the crust of the earth).

Between **280 and 300 million years** ago erosion caused the disappearance of the **Ancestral Rockies**. The sedimentary rocks that resulted from the mud and gravel formed the **Fountain Formation**. About 1 mile thick, this formation includes **conglomerates** – rocks that look like a bunch of pebbles cemented together.

Between **245 and 280 million years** ago, the climate of the area became desert like and sand dunes formed. These fine grained sands were deposited by winds and eventually formed the **Red and White Lyons Formations**. The fine particles contained a lot of iron which give rocks of this period a very deep red color.

In the period between **200 and 245 million years** ago the area underwent another period of erosion. Seas appeared in the area about **200 million years** ago. Evidence of this can be seen in the sedimentary rocks that formed from sea mud, lagoons and swamps that are between **66 and 144 million years** old. The rocks that formed during this period are part of the **Lykins and Morrison Formations**. Although the youngest formation in the park, the subsequent mountain building periods caused these rocks to be covered by the **Fountain** and **Lyons Formations**.

Apart from sedimentary deposits, the area also experienced two mountain building periods:

1. About **70 million years** ago movement in the earth's crust (plate tectonics) caused the continent to buckle and form a mountain range - the current (and second) **Rocky Mountains**.
2. The last mountain building period was recent in geological time. It occurred about **10 million years** ago and it formed **Pikes Peak** that was basically the uplifting of a granite batholith.

The forces from these two mountain building periods transformed the horizontal strata into the faults (breaks in the strata), folds and angled or tilted layers we see today.