the Department finds about 15 to 20 camps in City Creek Canyon each year (Salt Lake Tribune). On June 18th, 2003, the City announced its annual prohibition against fireworks north of 11th Avenue and in City Creek Canyon (Deseret News). On June 18th, 1995, the City began work on converting the greenbelt at 2nd Avenue and Canyon Road into a park with a faux City Creek (Salt Lake Tribune). On June 18th, 1992, Jack Quintana, a groundskeeper at the State Capitol notes that there an explosion of rock squirrels at the State Capitol, and he notes they their population varies on a nine-year cycle (Salt Lake Tribune). The adjacent City Creek Canyon is primary breeding habitat for the squirrels.

On June 18th, 1930, William Monson, a smoker who started a fire near City Creek Canyon was fined 5 USD (Salt Lake Telegram). On June 18th, 1900, more than 12 cattle, bearing the Circle-9 brand, were impounded for illegally grazing in City Creek Canyon (Salt Lake Tribune).

June 19th

A Walk Through Time. Last Day of Astronomical Spring

3:00 p.m. It is the last day of astronomical spring, and the canyon has completed its seasonal growth spurt, has become pregnant, and is readying itself for the coming stress of summer's heat. Today, as I sometimes do, I see a walk through nature as a walk through geologic time and the history of life. The canyon contains living refugees from each major geologic period.

The stream and the seep below picnic site 6 (Lat. 40.80076 Long. -111.87286) contains slimes, molds, bacteria and protozoa from the Hadean Eon to the Precambrian period in the Neoproterozic, 530 million years ago. There are 2.2 x 10^30 prokaryotes in the 4 kilometers of Earth beneath my feet from that era (December 20th), and another 7.2 x 10^24 microbes in the 4 kilometers of air above my head (*id*). The orange Hooded sunburst lichen (*Xanthoria fallax*) that covers the Gambel's oak trees (*Quercus gambelii Nutt.*) also come from this time. Lichens include fungi that reproduce asexually, but for some fungi, they exhibit early prototypes of sexual reproduction.

The mosses also that adorn the oaks and that live on rocks in the stream come represent life's first steps onto the land in the Ordovician period 485 million years ago. The leaves of these canyon mosses do not have vascular structures that arose later in true land plants.

The trout in the stream represent the arrival of fish in the Silurian period 443 million years ago. The Horsetails by the side of the road represent the vascular plants that also migrated to the land during the Silurian period.

Insects first appear during the Devonian about 400 million years ago. The canyon's conifers represent the Carboniferous period beginning about 350 million years ago. The Permian period beginning about 290 million years ago when mollusks arrived is represented by the Common garden snails seen crossing the road. The Permian is also when insects like the Variegated meadowhawk dragonflies arose.

The Mesozoic era, including the age of the dinosaurs during the Triassic, Jurassic, and Cretaceous periods, began about 250 million years ago. Presently, the dinosaurs are represented by their descendants, the many birds of the canyon. The many flowering plants and trees in the canyon first appeared during the Cretaceous, 130 million years ago. The late Cretaceous is represented by the canyon's Western rattlesnakes and Western ground snakes (*Sonora semiannulata*). Small mammals like the Rocky Mountain deer mice and Rock squirrels also first appeared during that period.

The Cenozoic era, including the Paleogene period that began forty million years ago, is represented by the canyon's many butterflies. The Neogene period that began about 25 million years ago is represented by the grasses along the road. The early Quaternary period, the Pleistocene that began about 2.5 million years ago, is represented the canyon's Coyotes (*Canis latrans*), Mountain lions (*Puma concolor*) and Black bears (*Ursus americanus*). The late Quaternary, the Holocene, is represented by *Homo sapiens*, myself and the other walkers and runners on the road.

In the last 500 million years, the Earth has rotated around the core of the Milky Way two times. Life remains persistent, infinite, incomprehensible, and irrepressible.

Per Thoreau's "Journal" on June 19th, 1852, he notes that clover, buttercups and geraniums are at their peak. Grapes and mullein are blooming. He hears robins and walks across a summer-dried swamp and collect orchids. On June 19th, 1853, blue-eyed grass, a small iris, is blooming. He sees a blue jay, a tanager, and a cuckoo. He hears a night warbler and a bobolink. On June 19th, 1854, he admires a distant thunderstorm. On June 19th, 1859, he observes a squirrel nest and its young, and he sees a partridge. On June 19th, 1860, he follows a fox track back to its burrow.

On June 19th, 1993, the 14th annual Wasatch Steeplechase was won by Tom Borschel with a time of 2:02:50 (Salt Lake Tribune, June 20th, 1993). On June 19th, 1992, the City and the L.D.S. Church develop a master plan that proposed a five block parkway with City Creek raised to the surface (Salt Lake Tribune). The Tribune notes an enlarged underground conduit was installed after the 1983 floods along North Temple (*id*).

On June 19th, 1925, the City condemned land at the mouth of City Creek Canyon (Salt Lake Telegram). On June 19th, 1917, the City reopened City Creek Canyon after initially closing the canyon out of concerns that terrorist saboteurs might harm the City's water supply (Salt Lake Telegram). On June 13th, 1913, in support of a national education convention held in the City, Parks Commissioner George D. Kesyer plans to open City Creek Canyon road to automobiles (Salt Lake Tribune). Prison labor will be used to improve the road (*id*).

On June 19th, 1903 in a lengthy statement, City Engineer L. C. Kelsey described the risk to the City of flooding from a cloudburst after hundreds died in a cloudburst flood in Heppner, Oregon:

A part of the city is located at the mouth of City Creek canyon in such a position that a heavy cloudburst in the canyon would send a wall of water into the city that would cause a heavy loss of probably both life and property.

I understand that cloudbursts in former years have done considerable damage, but nothing of that kind has ever happened while I have been here.

A cloudburst of any considerable magnitude would do almost incalculable damage, and I cannot see how it could be avoided.

There is no possible way to divert such a stream without an enormous expenditure of money. If

unlimited means were at hand the question would have to be most carefully considered. I would not suggest any means of reaching this end without studying the situation. Means, however, could certainly be devised.

A wall of water coming down the canyon, similar to that at Heppner, would sweep everything before It. Residences in the canyon's mouth would fall like card houses and the wave would then sweep down North Temple and State streets. The greater volume would go down the former and the wall surrounding Temple square would melt before it.

The Temple itself, the basement at least would be inundated and havoc would be played there. The water going westward would soon spread, but incalculable damage and perhaps heavy loss of life would mark its path.

The lesser volume would go down State street, spreading ruin in its course, until it, too, had dissipated.

While such a thing is not probable, it is altogether possible, as the city in a climatic belt where cloudbursts could be well expected. Such things cannot, however, be foreseen (*id*).

On June 19th, 1895, Watermaster Commissioner Heath reminds citizens that no fishing is allowed in City Creek Canyon (Salt Lake Tribune). On June 19th, 1894, the Lady Rosalind Stearns bicycle race was held up City Creek (Salt Lake Tribune). Three racers went up the canyon at full speed, and the winner was forced by exhaustion to dismount at seven miles up the canyon (*id*).

June 20th

First Day of Astronomical Summer

6:00 p.m. It is nearly 100 degrees Fahrenheit on this first day of summer. Although this is the longest day of the year and the amount of total light falling today is four times the amount of light that occurs on the winter solstice (March 21st), this is usually not the hottest day of the year. The Earth continues to absorb the sun's heat by melting at the poles, and thus, the hottest days of the year with 100 plus degrees Fahrenheit are lagged by three or four weeks to the end of July.

But the recent heat wave is an unusual preview of the coming summer hottest days. Today, and more typical of late July, the heat boils the water from the land, and in the afternoon, great cumulus clouds rise and re-deposit the day's