

Geologist Determines Age Of Grandfather Mountain

University of Virginia Professor Makes Survey and Reports at McRae's Request

Linville, Aug. 6.—For many years Grandfather mountain near here has been known as one of the oldest, if not the oldest, mountains in the world. This information has been relayed to visitors to the top of the mighty old peak since the opening of the two-mile trail to a point near the top and has naturally caused quite a bit of discussion as to just how this fact was determined.

In 1930 Wilbur Nelson, a Cornell professor of geology at the University of Virginia, came to Linville at the request of Nelson McRae, president of the Linville company, to make a study of the company properties, which include 1,600 acres of land. The result of his work has been embodied in two reports, one a highly technical one concerning the topography, drainage, formations, geology, structure and natural resources; the other being merely a geologic story of the Grandfather mountain region of western North Carolina. It is from this latter report that the reason for Grandfather's being called "the oldest mountain in the world" can be obtained.

Geologic Story

The geologic story of the Grandfather mountain region is one that goes back to the beginning of historical geology, that phase of the science of geology that deals with ages and relationships of the rock layers and masses which make up the surface of the earth.

The oldest rocks exposed on Grandfather are known as pre-Cambrian, and are of three types, all of igneous origin. One type, known as the Cranberry granite, was solidified from a molten state far below the surface of the earth and is now at the surface due to the wearing away by erosion of the many thousand feet of overlying rocks in the millions of years which have elapsed since it solidified by cooling.

In all geologic processes one must use a yardstick for measuring geologic times of approximately 100,000 years, or even a million years, instead of the yardstick of minutes, hours and years which we use in ordinary history.

Cranberry Granite

So this Cranberry granite which forms much of the surface of Grandfather was solidified from a molten mass, and became a surface rock even during pre-Cambrian time. It formed part of the land surface of the earth during this geologic period, when all life on the earth lived in the oceans and only life of the lower forms existed.

Then came a period of intense surface igneous activity during which molten lava flowed out on the surface of the earth, not from volcanic cones as one sees it today in many parts of the world, but welling up from great rifts or cracks in the earth's surface until many thousands of square miles were covered. Then this flow stopped.

Surface Flow

The great surface flows were of two types, one known as the Linville metadiobase, the other as the Montezuma schist. But both have been altered and changed due to the heat and pressure of the mountain-forming force to which this region has been subjected. The original structure has been lost and the rock-forming minerals greatly altered. The only visual evidence left in this rock to show it was originally a surface lava flow is small, round, filled cavities, some of which have been mashed flat or elongated, which were formed by gas bubbles in the flow. The smaller of these cavities have been filled by white quartz, green epidote, or red jasper.

This great flow came at or near the close of the pre-Cambrian period and ushered in a period of great earth movements which resulted in the settling and submergence of land. Probably for the first time the area of Grandfather mountain changed from land to a water surface of the earth.

To the east of this region, in the area now known as Piedmont, there still existed land, composed of high mountain masses which lasted into Cambrian time. Their wearing away produced the great thickness of sandstone, conglomerates, and shales which total several thousand feet. The sediments washed off the mountains to the east were deposited in the newly-formed sea, extending from the region just east of the Grandfather westward so that during that time this area was in the eastern edge of a great epicontinental sea.

From the depositions made in this area from the mountains to the east geologists have concluded that from the close of the Cambrian period, known as the beginning of the Paleozoic era, to the present this region has been a continuous land area, a land area, however, which has not been stable but which has gone through one or more great cycles, uplift, deformation and down-warp, and has also been subject to erosion which resulted in the deposition of at least 48,000 feet of sediments in the Paleozoic soap that existed to the west.

At the close of the Paleozoic era, a great earth movement took place along a line roughly extending in a southwest direction from the maritime provinces of Canada to Alabama, movements which resulted in breaking, folding, or faulting of the rock layers. This period of mountain-making, which took place many millions of years ago and is known to geologists as the Appalachian Revolution, caused to flat-lying sandstones, conglomerates and shales to be folded, compressed and faulted, due to the movement of the surface rocks from the coast to the west against an immovable segment of the earth's crust. So was produced a crumpling of the surface rocks much as one would crumple the leaves of a book or magazine by showing from the unbound edge toward the bound edge of the book.

Mountain Chain

At the end of the great period of folding at the close of the Paleozoic there came into existence a magnificent mountain chain, with towering peaks and masses, much higher than at present, for from that day to this, the action of heat and cold, wind and rain, have alternated and combined to continuously wear away these rocks. With the aid of the rivulets, creeks and rivers these eroded particles of rock and soil have been carried away, some toward the Atlantic, some toward the Gulf of Mexico, until the mountain points as we know them came into being.

The harder, less soluble rock, being more resistant to erosion, formed the mountains such as Grandfather, while the softer rocks formed the valleys and low ranges of this section. It is this differential erosion at work through the millions of years that have elapsed since the close of the Paleozoic, plus a gentle uplift or warping of this region several times since then, that has added the final touch to the mountain scenery.

Even today Grandfather towers above his neighbor peaks to the height of nearly 6,000 feet above sea level while the valleys have a general elevation of 4,000 feet. It is because of this that the view to be obtained from the top is one of the most beautiful to be found anywhere in eastern America.

THE WEEK IN WASHINGTON

(Continued from Page One)

start home to have it out with their constituents. The passage of time and the things they hear from the folks back home may change the attitude of some of those who are at present hopping mad. Those who are most seriously concerned are the "old-line" Democrats from the south. They are concerned about numerous tendencies which they believe will handicap the progress of the south and infringe upon the rights of the southern states to look after problems which they regard as peculiarly their own. They are afraid of federal regulation of hours and wages, believing that it will put the south at a disadvantage in its efforts to build up new industries.

They, or some of them, were enraged by the renewal in the last days of the session, to put over the anti-lynching bill. They have been behind the administration, up to this year, by reason of their ingrained tradition of party loyalty, and they still retain that loyalty to the Democratic party, but protest that it is the New Deal which is disloyal, not themselves.

Republicans Planning for 1940

A bitter fight for control of the party at the 1940 presidential convention is shaping up. Here the south is handicapped by the abolition at the 1936 convention of the two-thirds rule. It takes only a majority vote now to nominate a presidential candidate. Under the two-thirds rule the solid south held the balance of power in Democratic national conventions.

Republicans are laying their plans for 1940, also. Talk of a coalition or constitutional party, to unite the conservative elements of both parties, is widely heard, but with little evidence so far that it has the support of practical politicians of either party to any extent.

The Republican national organization is still pretty well disorganized.

AT GRANDFATHER HOME



Children of Grandfather home, Banner Elk, at play. The cottages are the two permanent stone buildings of the institution. Under the development program of the Edgar Tufts Memorial association it is hoped to replace the other structures, which are frame, with similar buildings.

The talk of a winter convention to consider a program and definite Republican policies is still mostly talk. Mr. Hoover, Mr. Landon and Senator Vandenberg are supposed to have had some communications on the subject, and somewhere among those three the future leadership of the party lies. The belief that Senator Vandenberg, on his record in the senate, is the most available man in sight now for the Republican presidential nomination is widely held here.

Billion From Beer Tax

Uncle Sam is paying the expenses of the senators and representatives back to their home towns, at the rate of 20 cents a mile. It cost this year \$109,000, and will cost as much to get them back here in January. Most of the members get checks for the round trip at the beginning of the session. The largest check was for \$2,054.80 for Samuel Wilder King, territorial delegate from Hawaii, who lives more than 5,000 miles from Washington.

The treasury is happy over the cash returns from the beer tax. Since the sale of beer was legalized on April 7, 1933, the American people have drunk 260 million barrels of it, or almost a barrel a year per family, and have paid a federal tax of \$5 a barrel, which summed up early this month to a round billion dollars, which is more than the most ardent advocates of repeal predicted. The "hard liquor" and wine taxes have not yielded so much.

Surgeons Sew Negro's Heart, He Survives

Delicate Operation is Performed in Winston-Salem Hospital

Winston-Salem, Aug. 24.—Two men in white bent over an apparently lifeless form in the drag-gray operating room at City hospital.

The heart from the still, death-like body lay in the hand of one of the men. Eyes glued to the delicate human dynamo, the other man watched intently as the elder surgeon closed up a long gash in the heart.

There was no sign of life in the big, black body of Lester Harrison. An interne felt of the negro's pulse. "It's gone," he said.

There was no sound in the big room. The surgeons worked on, fighting against time. They never stopped. A nurse wiped perspiration from their foreheads.

"Maybe," the elder surgeon thought as he worked to save a life, "there is a chance. Maybe he will live. Maybe this will be a miracle."

Carefully, he placed the heart back into the body, back into the place where God put it when he made Lester Harrison and gave him life.

A faint tremble of the heart muscles.

Weary almost from exhaustion, the surgeons looked hopefully. One brushed his hand across his eyes.

"God," he thought, "is it moving?" It was.

Lester Harrison would live, maybe.

Thirty minutes before he was wheeled from an ambulance in the hospital yard to an elevator and rolled into the room.

Police had found him dying in front of his home on Cleveland avenue. An ice pick had been jabbed into his heart.

Harrison's eyes were glassy when they wheeled him through the swinging doors to the operating room.

That was last night. On a white cot in a room one floor below the room where doctors performed a surgical miracle to save his life, Harrison lay today.

There was a smile on his face. "Ah feel fine, doctor," the negro told Dr. J. B. Whittington, superintendent of the hospital.

But Harrison is still a sick man. Anything can happen, almost. The shadow of death still hovers over his bed. But he thinks he will live. "My chest," he said, "is a little sore. But Ah feels fine."

Local Teachers Attend Conference

Mrs. R. H. Harmon and Mrs. Wade E. Brown attended the vocational home economics conference at the Woman's College, Greensboro, last week. The conference was under the direction of Miss Catherine T. Dennis, state supervisor of home economics education, and Miss Virginia Ward, assistant supervisor.

Teachers representing over 200 vocational departments gathered at this time for the purpose of planning the teaching program for the coming school year and discussing the new federal requirements for vocational education.

High school home economics, federally aided, is made possible through the co-operation of local school authorities with the state and federal boards of vocational education. Two-thirds of the expenses for the maintenance of such a department for a ten months period is reimbursed through the use of federal and state funds. The remaining third is taken care of by the local administrative units. Watauga county maintains departments for vocational home economics at Boone and Cove Creek schools.

Departments of this type are found in schools where there is an interest in an enriched course of home economics through a more closely related home community program. In addition to high school classes and supervision of home projects carried on by pupils, the teacher organizes adult groups interested in related subjects of home-making to the extent to which interest demands and time permits.

Mrs. Harmon and Mrs. Brown are anxious to co-operate with all local and county agencies interested in promoting better home and community life and urge that they be called upon to render any service possible.

IMPROVEMENTS MADE AT HARDWARE STORE

The mezzanine floor of the Farmers Hardware and Supply Co. has been extended so as to provide the establishment with about six hundred feet of extra display space. Another improvement which greatly enhances the exterior of the progressive institution is the placing of striped black glass in the space between the sidewalk and display windows. The windows are also being refinished on the inside.

A new variety of glass has been produced by French manufacturers. It is so tough that it can be nailed to the wall, drilled or sawed, without danger of fracture.

SPECIAL NOTICES

FOR SALE—Eight weeks old pigs. Ready for delivery. See or write Joe Moody, Vilas, N. C. 1p

FOR SALE—59 acre farm, 4 miles from Boone, just off Blowing Rock road. Good 7-room house and out-buildings. Plenty water. Price reasonable. Rev. W. C. Payne, R. F. D., Blowing Rock, N. C. 8-28-3p

FOR SALE—AT a low price, 2 three-gallon milk cows. Must sell now. W. L. Winkler, Shulls Mills. 1p

WE OFFER YOU the best in Beauty Culture training. It will pay you to investigate our modern school. Tuition \$65.00. Mochimann Beauty School, Hickory, N. C. 8-19-4c

FOR SALE—Six good Holstein cows, five milkers. Also one young thoroughbred Holstein bull. Failing health cause for sale. A. C. Trivett, Sugar Grove, N. C., Route 1, Box 44. 8-19-1f-2p

MAN WANTED for Raleigh Route of 800 families. Write today. Rawleigh's, Dept. NCH-23-SA, Richmond, Va. 8-12-3p

LUMBER FOR SALE—About 15,000 feet of cull oak and chestnut. Will sell at reasonable price. Don Ellison, 2 miles below Todd. 8-5-4p

I HAVE a number of good used pickups and trucks will exchange for horses and mules. If interested write me. Frank G. Harris, Hickory, N. C. 7-26-4c

FREE—If excess acid causes you Stomach Ulcers, Gas Pains, Indigestion, Heartburn, Belching, Bloating, Nausea, get free sample doctor's prescription, Udga, at the Boone Drug Co. 7-8-12p

WANTED, GIRLS—To learn Beauty Culture. Complete course only \$50.00. Positions secured for graduates. Instructors have had many years experience. Write for booklet. Hinshaw School of Beauty Culture, Box 46 46, North Wilkesboro, N. C. 7-29-8c

EYES EXAMINED—Glasses fitted. Complete modern examination room over Bank, Wednesday and Thursday each week. Other days by appointment. Glasses complete 7.50 to \$10.50. Dr. Wellman, Mountain City, Tenn. 8-15

DR. C. B. BAUGHMAN, Eye, Ear, Nose and Throat Specialist, Elizabethton, Tenn., will be in the office of Dr. J. B. Hagaman in Boone on the first Monday in each month for the practice of his profession. 8-19-2c

NOTICE

An Ordinance Authorizing the Issuance of \$218,000.00 Refunding Bonds.

Be it ordained by the Board of Commissioners of Boone, North Carolina: Section 1. Bonds of the Town shall be issued to the maximum aggregate principal amount of \$218,000.00 for the purpose of refunding the following bonds of the town now outstanding and to be cancelled simultaneously with the issue of the bonds to refund the same:

- \$4,000.00 Street Improvement Funding 6% Bonds dated October 1, 1922, and maturing \$1,000.00 October 1st of each year 1933 to 1936, inclusive.
 - \$6,000.00 Street Improvement 6% Bonds dated January 1, 1924, and maturing \$1,000.00 January first of each year 1936 to 1941, inclusive.
 - \$34,000.00 Water Supply System 6% Bonds dated July 1, 1925, and maturing \$2,000.00 July 1, 1935, \$1,000.00 July 1, 1936, \$2,000.00 July 1, 1937 to 1957 inclusive; \$5,000.00 July 1, 1958 to 1964 inclusive, \$4,000.00 July 1, 1965.
 - \$40,000.00 Street Improvement 6% Bonds dated February 1, 1926, and maturing \$2,000.00 February 1, 1934 to 1939 inclusive, \$4,000.00 February 1, 1940 to 1946 inclusive.
 - \$36,000.00 Street Improvement 6% Bonds dated May 1, 1926 and maturing \$1,000.00 May first of each year 1934 and 1936, \$2,000.00 May 1, 1937 to 1939 inclusive, \$4,000.00 May 1, 1940 to 1946 inclusive.
 - \$14,000.00 Street Improvement 6% Bonds dated October 1, 1926 and maturing \$1,000.00 October 1, 1934, \$1,000.00 October 1, 1936 to 1944 inclusive, \$2,000.00 October 1, 1945 and 1946.
 - \$22,000.00 Street Improvement 6% Bonds dated October 1, 1928 and maturing \$1,000.00 October 1, 1934 to 1939 inclusive, \$2,000.00 October 1, 1940 to 1947 inclusive.
 - \$12,000.00 Refunding 6% Bonds dated September 1, 1932 and maturing \$5,000.00 September 1, 1947 and 1948 inclusive, \$2,000.00 September 1, 1949.
- Section 2. A tax sufficient to pay the principal and interest of the bonds shall be annually levied and collected in the manner and amounts to be hereafter specified by resolution.
- Section 3. A statement of debt of the municipality has been filed with the Clerk and is open to public inspection.
- Section 4. This ordinance shall take effect on its passage and shall not be submitted to the voters.
- The foregoing ordinance was passed on the 18th day of August, 1937, and was first published on the 19th day of August, 1937.
- Any action or proceedings questioning the validity of said ordinance must be commenced within thirty days after its first publication.
- G. K. MOOSE, Town Clerk.

BUSINESS ASSOCIATE WANTED

We want a capable man to invest in a successful retail business in the city of Boone, N. C., where he will own, operate and control his capital. EXPERIENCE in our line is not essential; we provide the necessary training free. For full particulars write

WESTERN AUTO SUPPLY CO.
311 W. Wendover Ave., Greensboro, N. C.

POTATOES

Attention, Farmers!

We have a two-horse Potato Digger in stock which we will sell at reduced price for quick sale. Come look it over. Will do the work of eight or ten men.

WE CARRY A COMPLETE STOCK OF
POTATO HOOKS AND BAGS

BOGGS POTATO GRADERS ON
SPECIAL ORDER

FARMERS HARDWARE

And SUPPLY CO.

BOONE, N. C.