

# Earth, Planets Said Ashes of Stars Which Died Billions of Years Ago

Washington—UPI—The earth and her sister planets are the ashes of red giant stars which died violently billions of years ago.

The sun, also born of the dust of dead red giants, will become a red giant itself in another 10 billion years, and it, too, will some day contribute its substance to the creation of new stellar systems.

This picture of continuous birth and death of stars was presented in a symposium at the annual meeting here this week of the National Academy of Sciences.

A key paper read at the symposium was written by Dr. William A. Fowler of the California Institute of Technology on "neutron reactions in red giants and super novae." Dr. Hans A. Bethe of Cornell, who briefed newsmen on it, called the theory developed by Fowler "a tremendous achievement" in theoretical physics.

Bethe said it provided a scientifically satisfying explanation of how the various chemical elements were created out of hydrogen, the primordial building material of the universe.

When stars reach the stage in their lives when they become red giants, they have only about 100 million years of life left. From birth to death stars manufacture chemical elements by means of nuclear processes.

First they put nuclei of hydrogen together to form helium. Then as their insides grow hotter, they form heavier elements by using helium nuclei as building blocks. Steps at iron, number 26 in the table of elements. But there comes a time in the hearts of red giants when the temperature reaches something on the order of five million degrees. Then iron is broken down into helium nuclei and neutrons, subnuclear particles carrying no electrical charge.

Iron and other elements in the cooler parts of the star capture neutrons in successive steps and build up into ever heavier elements. This process may be slow, taking on the order of 100,000 years, or fast, lasting no more than a minute.

In the slow process the red



**MINNEAPOLIS CLEANED UP**—Where lower end of the business district a hangout for transients and a breeding place for crime. This aerial view shows the tallest structure in the city, the First National Bank, which is nearing completion. At left is the Rand Tower, and at right is the Telephone building. (UPI Telephoto)

giant is constantly losing matter to space in a fashion similar to the sun's emission of hydrogen gas but on a larger scale.

The fast process, which complements the slower one, occurs when stars collapse and explode, becoming supernova is equivalent in energy release to the explosion of a number of H-bombs which can only be expressed by the digit one followed by 30 zeroes. Scientists estimate that a supernova explosion occurs once every 400 or 500 years in every galaxy.

A red giant may be as big as the entire solar system and weigh three or four times as much as the sun. In a matter of minutes, when its time has come, it can collapse to a fraction of its size.

In the resulting explosion most of its matter, including the heavy elements it has made as well as leftover hydrogen and helium, is distributed through the galaxy.

It is out of the debris of red giants, whether given off slowly or explosively, that new stars are formed and ex-

isting stars fed. Existing heavy elements above iron on earth, where the list ends with uranium, the 92nd element, proves the planet's matter came from ancient stars which gave up the ghost billions of years ago.

In another 10 billion years, according to the theory, the sun will be going into its red giant phase. Earth's oceans will evaporate. In another hundred thousand years or so earth and the other planets and most of the sun will be resolved again into the stuff of stars yet to be born.

## 4-H NEWS

**Jacksonville 4-H Club**  
The Jacksonville 4-H Livestock club met recently at the home of the president, Dick Wilson.

Bob Glather gave a demonstration of a calf feeder which he had designed and built. It was then auctioned off.

The meeting, which had been planned for Sunday morning, May 8, has been cancelled. The Beef club has been invited by the Antelope club to attend a meeting Saturday, May 7, to learn how to fit calves.

At the close of the meeting we had recreation, then refreshments were served by Mrs. Glenn Logan, Mrs. Donna Smith, Reporter.

**Needle Crafts Girls**  
Mrs. Huffman taught the Eagle Point Needle Crafts Girls club Friday, April 22. We worked on our scarfs. Mrs. Haffery will teach the group next Friday.

Mary Kathryn Sinders, Reporter.

**Merry Mixers**  
The April meeting of the Merry Mixers was at Dianna Davis's home. After the meeting we made muffins. Refreshments were served by Mrs. Davis.

The next meeting of the Merry Mixers will be at Susan Cornutt's home May 6. Elin Livingston, Reporter.

**Beef Club**  
The regular meeting of the Central Point Beef club was held Monday, April 10, at the home of Carolyn Sidener.

Mr. Lemley from the Farm Bureau Insurance company talked to us about insurance for our beef animals. Nikki Hammond showed some of the younger members how to make a halter.

Refreshments were given by Jill and Jack Peek. Carolyn Sidener, Reporter.

**Daffy Dills**  
The Daffy Dills visited the Hanley ranch Saturday, recently and Miss Claire Hanley showed us around. We liked the magnolias, trilliums, daphnes, primroses and clematis, and the springhouse and the 100 year old trees.

We saw the greenhouse in which orchids, carnations, geraniums and a lemon tree were growing. Before the trip to Hanley land, we went to the Crater Flower Show where Elaine, Patti, Cheryl and James had entries.

James Anhorn, Reporter.

**Central Point Forestry Club**  
Members of the Central Point Forestry 4-H club met at the home of Mrs. Skyrman in Central Point Sunday. Members went on a field trip to the forest. A contest was held to see who could exhibit the most tree specimens.

We collected specimens for our press books. Everyone brought his own lunch. Pat Burcha, Reporter.

**Table Rock Stitches**  
Members of the Table Rock Stitches 4-H club held an Easter party for younger brothers and sisters. The party was held at the home of Mrs. Frank Myers, Saturday, April 16.

Games were played and there was an Easter egg hunt. The next meeting will be held at the home of Mrs. Frank Myers May 7. Marjory Bonney, Reporter.

**POISON FACTOR**  
Albuquerque, N.M.—The black widow spider's venom is six times as deadly as the cobra snake's and 15 times more deadly than the rattlesnake.

## Skyscrapers Taking Place of Dingy Hangouts in Minneapolis

Minneapolis—UPI—Where staggering drunks once littered the sidewalks with cigar butts and empty bottles, a new atmosphere is being created in Minneapolis' Lower Loop.

Skyscrapers and massive civic buildings are replacing the dingy bars and cheap rooms that made the lower end of the business district a hangout for transients and a breeding place for crime.

The old Bridge Square district is where Minneapolis began. But until a few months ago it was the decaying heart of Minnesota's largest city.

Now the shabby buildings are coming down. In their place are rising structures like the new \$8 million public library and a \$6 million federal court building.

For the first time in more than a century, land in the Lower Loop is up for public sale. Most of its present owners won't be back. The pawnshops and used clothing outlets, the bars and the flophouses—if they reopen at all—will have to set up shop in a new location.

**Change Accomplished**  
And the money pouring into the Lower Loop is accomplishing a change even more dramatic than that which saw an enterprising

man named John Stevens create this city out of nothing in 1849.

Stevens picked out a 160-acre plot on the west bank of the Mississippi, laid out streets that still remain, and he had what was to become Minneapolis.

When the railroads moved in, Minneapolis became a center for flour milling and retail trade. But that has changed too. Much of recent department store expansion has been concentrated in outlying areas—such as Southdale, a 167-acre, multi-million dollar suburban center.

While names like Pillsbury and General Mills remain, the city has lost its milling leadership. Instead it now boasts of a rapidly-expanding electronics industry and production for the space age. Firms here turn out everything from the world's largest balloons, used in forays high into the atmosphere, to a cabin simulating conditions in outer space, in order to prepare man for what lies beyond.

A total of \$69 million is scheduled to go into downtown buildings this year. And a good share of it will be spent in the Lower Loop.

**Hotel Planned**  
Construction will begin in 1961 on an \$8 million hotel, likely to be the showplace of the area. A state employment building has already been completed, as has a \$2 million Public Health Center.

The gleaming new buildings are far different from those they replaced. A City Planning Commission survey estimated that 77 per cent of the old buildings were built before 1895; 70 per cent had no major repair since 1920; 88 per cent were not fireproof.

About one-quarter of the land in the project has been acquired by the Housing and Redevelopment Authority; the rest is under condemnation.

It is not only in the Lower Loop that new buildings are going up. A few blocks away, the First National Bank Building, just finished at a cost of \$15 million rises 28 floors from the street.

The Radisson Hotel has a \$4 million expansion program underway. In the planning

## United States Regains Prestige In Space Effort

Washington—UPI—George V. Allen, head of the U.S. Information Agency, says the United States has regained a great deal of world prestige through its recent space successes.

Allen told the House space committee three months ago that Russia had gained in world opinion because of its space work but in this latest statement he said it is "quite a different story" today.

"That doesn't mean to say that Russia doesn't still hold a lot of prestige," he said, "but people are coming to realize more and more, for example, that the only earth satellites that are revolving around the earth today are American."

Allen said there are five

U.S. Satellites in space now, one of them 6 million miles away and still broadcasting back to earth.

He made the remarks in an interview with Rep. Harold C. Ostertag (R.N.Y.), on a program filed for New York Television stations.

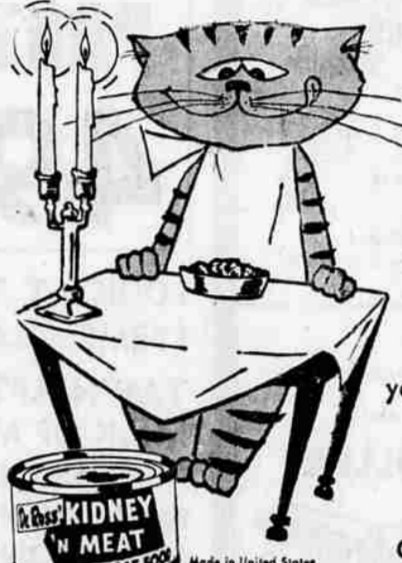
Ostertag asked Allen what his agency was doing "to meet the rapidly changing conditions in Africa."

"Well," Allen replied, "I'm sorry to admit that we're not meeting it, because they are so demanding. There are so many of them, we just don't have the personnel and the money."

He also reported that his recent trip to the Far East showed the attitude toward the United States has improved over a year ago.

Washington—UPI—Scientists said Wednesday that astronauts who escape the earth's radiation belts will run into similar ones if they try to land on Mars or Venus.

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<b>PEAS</b> Tastwell Garden 10 303 Tins <b>\$1.00</b>	<b>MARY ELLEN No. 1 Strawberry Jam</b> 2 4 oz. jars <b>89¢</b>
<b>Green Beans</b> Tastwell Cut 7 303 Tins <b>\$1.00</b>	<b>SPAM</b> 12 Oz. Can <b>39¢</b>
<b>CORN</b> Tastwell Whole Kernel 6 303 Tins <b>89¢</b>	<b>BIRDS EYE FROZEN ORANGE JUICE</b> Large 12 oz. can <b>39¢</b>
<b>STRAWBERRIES</b> FRESH, RED RIPE 29¢ Pint 4 full pints <b>99¢</b>	
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