

ed if I would just open a cavity for him so he could have a personal experience. I followed his directions, used a stone to cut through the enamel and exposed the dentin. Then, used a 34 inverted cone bur and made one cut into the dentin. He squirmed from the pain.

He then asked me to make the application. I used the same bur, prepared a cavity and filled it with cement. He got out of the chair, threw his arms around me and hugged me. It had been his greatest thrill in a dental chair."

Science News Letter, February 1, 1936

VITAL STATISTICS

Supreme Court Justices Are Not Unusually Long-Lived

DESPITE the general impression that Justices of the U. S. Supreme Court are an unusually long-lived body of men, statistical analysis shows that this is not the case.

As a group, each of the 66 Justices appointed since the court has been in existence lived about a year longer than would be expected for men of their ages in the ordinary walks of life, statisticians of the Metropolitan Life Insurance Company have figured.

Since 1862 the average age of the Justices at appointment has been considerably older than before that date, the figures also show. The situation has been reversed in so far as Presidents are concerned, it is pointed out.

The older average age at appointment of the Supreme Court Justices may be due to the fact that the rapidly growing complexity of our legal structure demands men of riper age. Whatever the reason, the average older age of these appointees during the period since 1862 "seems not to have affected their ability to carry on, if we may be guided by their longevity as compared with that of judges appointed in prior years. The average age of these later justices was almost four and one-half years greater than that of the earlier group—73.7 years as against 69.3," the life insurance company statisticians state in their report.

"During the 146 years that the United States Supreme Court has been in existence, 76 appointments and two reappointments—John Rutledge and Charles E. Hughes—have been made to this distinguished body. Of these 76 men, 66 are dead, their average age at death being 71.4 years. This cannot be called a particularly advanced age despite the fact that there have been three nonagenarians and nine octogenarians on the Supreme Court Bench since its foundation. As nearly as can be computed, the aggregate years of life expectation

of these 66 men at the time of their appointment was 1,205, while the total number of years actually lived was 1,265. As a group, each lived about one year over the life expectancy of men of their ages in ordinary walks of life.

"Prior to the Civil War the picture was somewhat different from that following it. The total years of life expectation of the justices appointed during the earlier period numbered 712, while their actual years of life totalled 713. They thus fulfilled almost exactly the term of life that ordinary men of their age might expect. Subsequent to the Civil War, the number of years lived by the judges somewhat exceeded the expectation of life at time of appointment (552 years as against 493), namely, by not quite two years each over the expected. It can hardly be said, therefore, that life on the Supreme Court Bench is outstandingly conducive to longevity, as is generally supposed."

Science News Letter, February 1, 1936

PSYCHOLOGY

Emotional Appeal to Voters Garnered Most Ballots

POLITICAL psychology is an ancient art, but as a science it is just in the process of being born, Prof. George W. Hartmann, psychologist of Pennsylvania State College, told the New York Academy of Science recently.

In a recent test, Prof. Hartmann said, a minority party in a Pennsylvania city checked the vote-pulling power of a pamphlet written with a rational appeal in the form of a series of suggestions for social and economic change, as compared with an emotional appeal pamphlet in the form of a sentimental letter involving primarily an appeal to parental interest.

Distribution was made in three ways: in certain wards of the city, 5,000 copies of the rational pamphlet were personally handed to the voters; in other wards, 5,000 copies of the emotional appeal were similarly given out; and finally other wards were left alone as control districts.

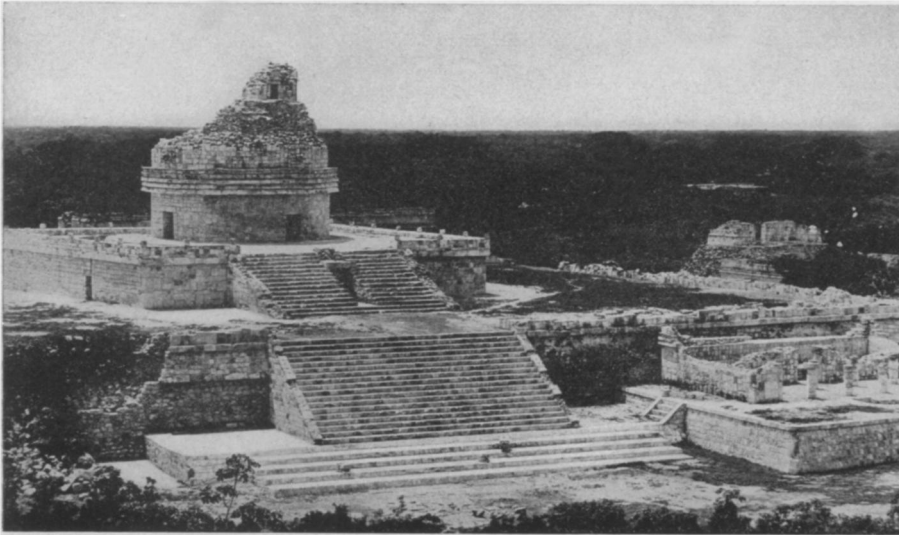
When the votes were checked, in a comparison with the previous year's voting the greatest increase was found in the wards receiving the emotional appeal; next came the rational appeal, and finally the control wards. The emotional pamphlet was twice as effective as the rational questionnaire type of literature.

Two weeks after the election a follow-up check of the voters showed that three times as many people remembered the emotional leaflet as recalled the nature of the rational one.

Science News Letter, February 1, 1936



THE CARACOL, AN OVERGROWN RUIN, FROM AN OLD PRINT



THE CARACOL AS IT STANDS RESTORED TODAY—STILL A RIDDLE

ARCHAEOLOGY

Mayas' Round Tower Restored, But Its Riddle Still Unsolved

THE MOST extraordinary of all the beautiful buildings in the Mayan ruins in tropical Yucatan stands restored—but it is an unsolved puzzle.

Archaeologists of the Carnegie Institution of Washington recently reported efforts to restore this building which adorned the Mayan Indian city of Chichen Itza in Yucatan before the Spanish Conquest. The building, one of the most famous ruins in America, is called the Caracol, meaning in Spanish the Snail.

Starting in 1925, Carnegie archaeologists worked on the Caracol for six years in the winter season, when conditions are right for digging and clearing in tropical America. They report that the arduous task is accomplished. The graceful round building on its dignified stone terrace stands clean-looking, stripped of untidy undergrowth.

The upper story, which has inside a winding stairway in snail-shell pattern, is left incomplete. Long as they studied the ruins, the archaeologists still felt uncertain of the original plan for the tower. No other building in all the Mayan ruins of Yucatan offers a clue. Mayan architects rarely chose to construct round buildings. And the Caracol with its winding stairway and tower is unique, so far as the modern world has fathomed Mayan ruins.

What the building was used for is,

however, the major mystery. The Carnegie Institution states:

"To archaeologists the Caracol has proved to be an enigma, for they have been unable to decide with certainty what purpose it served or its date."

Even archaeologists of the Carnegie staff differ in their opinion as to the building's significance. Theories include: that the building was an astronomical observatory; a military or civil watch tower; a temple for worship of Kukulcan, great Feathered Serpent deity of the Mayas.

The favored theory is that the building combined several of these functions. Its tower contains a passageway oriented due west, as if to serve as a line of sight for astronomical observations. But science and religion mixed amicably in Mayan civilization; a headquarters for sun and star gazing might well be both a temple and a watch tower.

The Mayan people had to depend on astronomer-priests to tell them when to plant and harvest their maize, for the astronomers were guided by the sun's crossing the equator and other signs. Lucky and unlucky days also crept into every corner of Mayan life, as astrology mixed with astronomy. On all these matters, the layman consulted his advisers, the astronomer-priests.

Science News Letter, February 1, 1936

ARCHAEOLOGY

Find First Evidence That Mayas Knew of Keystone

THE FIRST discovery in early American civilization of a keystone in building arches has just been reported by Dr. Alfonso Caso, excavating at Monte Alban, dead mountain-top city in the southern Mexican state of Oaxaca.

Some prehistoric Indian in Mexico, it now develops, discovered how to make a true arch. And yet, strange to relate, the builders of Mexico's beautiful temples did not hasten to use the new idea. It was invented, and forgotten.

The Indian arches continued to be magnificent, but being without keystones they were not self-supporting, and they were clumsy in comparison with the early buildings of the Greeks and Romans.

The keystone, in fact, is the distinguishing characteristic which marks the difference between Old and New World building construction in the days before the white man came to America.

The Mexican mason who stumbled on the principle of the keystone used it in constructing a Monte Alban tomb. But either he did not grasp its valuable significance and never used it again, or else his was but one small voice in the architectural wilderness. So far no other evidence of the use of the keystone has been found in the extensive Mayan structures.

Dr. Caso's find occurs in a tomb ceiling made by lean-to slabs. Gabled tomb ceilings made in this way are plentiful at Monte Alban and elsewhere but miss being true arches since their keystones are lacking.

The keystone tomb was found buried under three layers of plaster floor in the layer known to be next to the oldest in the city's history.

Technically the tomb will be recorded as No. 77 and is the richest since famous No. 7, which contained a remarkable treasure of gold and precious Indian stones.

Science News Letter, February 1, 1936

MINING

Ducks Discover Gold For Russian Miners

DUCKS, nuzzling a muddy pond bottom near the village of Yemasn Pavlovo in the Ural Mountains, yielded gold nuggets when they were killed and their gizzards slit open. Prospectors immediately went out and found the "pay dirt" deposits from which the nuggets had washed into the pond.

Science News Letter, February 1, 1936