

Tyrosinase was tried, first in rats and dogs and then in human patients, as a possible high blood pressure remedy because Dr. Schroeder believed the substance responsible for some varieties of high blood pressure may be a chemical

containing a phenolic group. This chemical group can be broken down by the mushroom enzyme. The results suggest, he says, "that some phenolic substance is altered."

Science News Letter, March 22, 1941

PALEOBOTANY

Ethiopian Climate Now Like Arizona's Long Ago

Forests in Early Dinosaurian Days Were Dominated By Great Tree Ferns and Relatives of Conifers

CLIMATIC conditions like those in parts of modern Ethiopia prevailed in the American Southwest 170 million years ago, when the long reign of the dinosaurs and their great reptilian kin was just beginning. This is indicated by fossil plant remains in one part of Petrified Forest National Monument in Arizona, studied by Dr. Lyman H. Daugherty of San Jose State College in California. Dr. Daugherty's report has just been published by the Carnegie Institution of Washington, along with a description of the geology of the region by Howard R. Stagner of the U. S. National Park Service.

The forests of Arizona in early dinosaurian days (Triassic, to geologists) were dominated by great tree ferns and relatives of modern conifers, Dr. Daugherty states. Higher flowering plants of the broad-leaved types were not to make their appearance for many millions of years. However, plant evolution was going on quite rapidly, as the saurians lumbered onto the scene.

Presence of tree ferns argues a warmer climate than that of present-day Arizona;

it was a warm-temperate or subtropical world. Conifer tree trunks show very sharply marked annual rings, indicating an abundance of rain during part of the year, followed by a severe dry season in which no growth took place. Great size of the petrified logs indicates a climate far better suited for tree growth than is the present climate of the Southwest.

Dr. Daugherty has come to the conclusion that in Triassic Arizona there were moist stream valleys with thick, jungle-like forests, the plateaus between them supporting lower vegetation with scattered trees. This kind of formation, called savanna by ecologists, is characteristic of parts of Ethiopia and other regions in Africa, as well as certain areas on the outskirts of the great central tropical forest mass in South America.

Evidence of forest fires in the ancient woods was turned in the form of boat-shaped log fragments crusted with fossil charcoal. However, no healed-over fire scars have been found, to indicate that trees suffered fire injury while living.

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ARCHAEOLOGY

Parts of Jerusalem's Third Wall Revealed at Last

WAR or no war, two archaeologists in Jerusalem are now methodically digging to clear up remaining mysteries concerning the Holy City's historic and controversial Third Wall.

This is the wall built by Herod Agrippa not many years after the death of Christ. St. Paul viewed this new and ambitious wall enclosing Jerusalem, in

the days when boldness of building such a fortification aroused suspicion that Jewish King Agrippa planned a revolt against Rome.

Starting last August, Professors E. L. Sukenik and L. A. Mayer of the Hebrew University resumed their investigation of the route of this long-buried Third Wall. Since 1925, these two, assisted by other

archaeologists, have pursued this digging project at intervals. Road construction in northern suburban Jerusalem offered the present good chance to inspect hidden depths of the city's past.

Digging in progress has revealed the foundation course of a wall and tower to the east of a modern American landmark in Jerusalem—the American School for Oriental Research.

Every foot of the buried walls of Jerusalem added to the map picture of the past is eagerly hailed by scholars because of arguments over true location of venerated sites. Especially keen is interest over the location of Jesus' tomb, which Biblical narrative places outside the city gate.

Discoveries of wall fragments in recent years have convinced some archaeologists that the famous Church of the Holy Sepulchre cannot be the site of Jesus' tomb, because they reconstructed the lines in such directions that the church would stand inside, not outside, the old Second Wall—the wall of Jesus' day.

The Church of the Holy Sepulchre owes its veneration to events in the fourth century when Emperor Constantine and his mother, Helena, took great interest in sites and relics relating to Christ and the location of the tomb was fixed where church and shrine stand.

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or stone course of ancient Jerusalem wall is a triumph for archaeology, for the city is a difficult one in which to make arrangements for archaeological digging, the walls are much damaged and broken in line, and the various enlargements of the city by new wall-building were not simple additions of a new and encircling barrier. The additions spread mainly

northward, expanding the city in that direction.

American archaeologists are literally on the ground where the Third Wall is being revealed, for the grounds of the American School of Oriental Research are crossed by the northern boundary line of this long-lost enclosure.

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ARCHAEOLOGY

Mystery of Cretan Writing Solved as Isle Is Air Base

Deciphering the Minoan Tablets Possible by Relating Them to Ancient Writings of Another Island, Cyprus

WHILE the isle of Crete makes World War history as a British naval and air base for Mediterranean battles, scientists who can still work at peaceful problems here in America report news of reading the mystery writing of ancient Crete.

When archaeologists rediscovered the amazing ancient civilization on this island some years ago, they were baffled by its writing. In the Palace of Minos and other ruins lay quantities of clay tablets quite unreadable. Evidently the bookkeeping files of the Minoan government, said language experts. Eagerly, they pointed out recognizable pictures of grain, of chariots, animals, men, children and deduced that these were official records of government property.

The Minoan, or Cretan, writing, experts further deduced, must have begun with picture signs about 2000 B. C. and then was simplified until about 1700 B. C. it became a convenient running script of about 40 characters. Beyond such deductions, the government records of a nation that once was an international power have remained wiped out of history.

But by a process that sounds like an Edgar Allan Poe cipher tale, or a wartime code expert's reasoning, a number of words of the lost Cretan writing can now be read. Dr. John Franklin Daniel of the University Museum, University of Pennsylvania, tells how it is being done.

Deciphering the Minoan tablets, says Dr. Daniel, is possible by relating them to ancient writings of another Mediterranean island, Cyprus. About 1450 B. C., people of Cyprus borrowed forms of letters from Crete for their own writing. This produced a hybrid Cypro-Minoan writing, which has been coming to light on storage jars unearthed in ruins on the island of Cyprus. Many of these inscribed jars shed brand-new light on the ancient language mysteries.

In time, this Cypro-Minoan script evolved in Cyprus into what language scholars call classic Cypriote writing. This latter is not mysterious, having been deciphered years ago.

So, the experts are now working backward from this well-known classic writing of Cyprus' people to trace as many

signs as possible back to forms they had in Crete.

Significant and helpful are such discoveries as that the early Cyprus language had no w, x, y, or z. Also, it made no distinction between such sounds as b, p and ph, or between t, d, and th, and consequently had only one sound in such groups.

Sound values of about one-third of the Minoan, or Cretan, writing signs are now determined, says Dr. Daniel. Using these as a key, a good many of the Minoan words are now readable, bringing the day nearer when the economics and government accounting of an ancient world power will be far better understood.

Science News Letter, March 22, 1941

MEDICINE

Skin Test for Pregnancy Gives Answer in One Hour

ASKIN test which tells within less than an hour whether or not a given woman is going to become a mother was announced by Dr. Frederick H. Falls, Dr. V. C. Freda and Dr. H. H. Cohen, of the University of Illinois College of Medicine.

The test is similar to those made for allergy or hayfever. It is said to be 98% reliable. Previously developed tests for early pregnancy take, according to reports of them, from 18 hours to two days. The widely used Asheim-Zondek test takes two days for a verdict.

In the test developed at the University of Illinois, colostrum is used. This is a watery liquid secreted in the breasts during pregnancy until milk formation starts after the baby is born. A tiny amount of this is injected by hypodermic needle into the skin of the forearm. If the woman being tested is pregnant, there is no reaction. If she is not pregnant, a reddish area of one or two inches diameter appears within an hour around the injection point, disappearing within about five hours.

Besides the speed and economy of the new test, it is said to be valuable because it helps to differentiate between pregnancy and abdominal tumor and also helps to determine quickly the dangerous condition in which the baby starts developing outside the uterus.

Another rapid skin test for early pregnancy has previously been announced by Dr. G. C. Gilfillen and Dr. W. K. Gregg of Dayton, Ohio. In this test a hormone is injected under the skin.

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