

## Maya History in Opera

*Archæology*

The glory that once was Maya will reveal its ancient splendor again in a modern opera soon to be presented in Mexico City, under the patronage of the Ministry of Public Education.

The creator of the prehistoric drama is Don Luis Rosado Vega, the well-known Yucatecan poet and writer, and director of the Museum of History and Archeology in Merida.

The Maya title of the opera is Payambe, meaning "The First One", and is a colorful tale of wars between kings of Tulum and Chichen Itza, complicated by amorous entanglements between a princess of Chichen and an enemy prince from Tulum. One of the most stirring parts of the drama is worked out amid Maya witchcraft in the Caves of Loltun, or Caves of the "Stone Flowers", in Southern Yucatan.

The scenery for the opera has been painted by Juan G. Novelo, a Maya boy, the fame of whose talent has not yet gone far beyond the limits of the peninsula. The first scene is in the

ancient city of Tulum, now fortress-like ruins on the almost unknown coast of Quinatana Roo, which turn their white shoulders on the Caribbean Sea. The artist visualizes the city as it once was, its temples and palaces on the lofty terraces facing inland, while the emerald sea and the blue skies are its background.

The second scene is in Chacmultun, today a ruined city not far from the modern town of Tecax. The third scene represents the limestone Caves of Loltun, near the modern village of Oxkutzcab, famous today for mysterious carvings left by the Mayas in the natural underground caverns and passages. The last scene pictures Chichen Itza, and features the Temple of the Warriors recently restored by the Carnegie Institution expedition into Yucatan.

The music of the opera is by Fausto Piñedo, a Yucatecan composer. There will be dances and ritual scenes with ancient Maya costumes and music. *Science News-Letter, August 24, 1929*

## Acid Cause of Anemia

*Physiology*

A possible connection between anemia and one type of "stomach trouble" was pointed out to members of the Thirteenth International Physiological Congress by Dr. W. N. Boldyreff of Battle Creek Mich. It is one of the best known of physiological facts that the juices of the stomach are highly acid, while those of the small intestines are less acid and finally alkaline. It is also known that red blood cells are destroyed by acid; this fact was established by experiments in test tubes, but had never been confirmed by observations on living animals. The possible connection suggested itself to Dr. Boldyreff, and he induced his associate, Ephraim Boldyreff, to make tests in his laboratory.

Acids were introduced into various parts of the digestive tracts of several dogs over a period of some weeks. In all cases it was apparent that the acids were being absorbed through the intestines into the blood stream, and the count of red blood cells fell off markedly, giving rise to a condition resembling pernicious anemia. When the acid was no longer administered, the blood of the dogs returned to normal after a few weeks.

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## Drugs Affect Rats

*Physiology*

Dr. Walter R. Miles of Stanford University wanted to study the effect of different drugs on the whole animal body in contrast with many recent biological experiments with drugs on separate muscles and organs. So he trained some laboratory rats to run through a complicated maze to reach their food.

After about a month, when he thought they were letter perfect, according to an account of his procedure presented at the Thirteenth International Physiological Congress, he tried the effect of injecting small quantities of different drugs just before his rats were ready for a meal.

Alcohol made locomotion difficult, but the rats still knew how to find their nourishment. John Barleycorn had no effect, at least in laboratory doses, on memory; but the rats couldn't walk straight. Another drug, hyoscine, a rather powerful depressant sometimes used for insomnia, produced just the opposite effect. They could walk perfectly but could not remember where to go and acted as if they were exploring the maze for the first time.

"No drug yet tried," said Dr. Miles, "has been found to produce a performance which is an improvement on the normal."

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## Planes Cross Canyon

*Aviation*

The north and south rims of the Grand Canyon of the Colorado are now spanned by a scheduled passenger transportation line that for the first time in history betters the two-day time of the mule-back trip down into and across the canyon which heretofore has been the only regular means of crossing the canyon directly.

Airplanes made the trip in thirty minutes flying time. Propelled by three 550-horsepower motors, the fifteen-passenger airplanes are using a natural field in the Kaibab forest, 8000 feet in altitude, claimed to be the highest regularly used airport in the world. It is often necessary to scare herds of deer off the field before the airplanes can be landed.

From the south rim, 7000 feet in altitude, the airplane rises another 3000 to 4000 feet in order that the great chasm, over a mile deep, can be traversed safely. An emergency landing field on one of the great terraces in the canyon's depths has been cleared and a test landing made.

In addition to serving as a quick means of transportation for those desiring to travel directly southward or northward between Salt Lake City and other areas north of the canyon and southern Arizona, previously a two-day roundabout rail trip, one day or one afternoon excursions from one rim to the other and return have been added to side-trips possible from either rim of the canyon.

Automobilists can pass from rim to rim over a circuitous route and merely passable roads via the new Lee's Ferry Bridge, but this requires at least two days.

Scenic airplane trips over the Grand Canyon from the south rim have been available for over a year, but the first landing of the passenger airplanes on the north rim was made this summer. The regularly scheduled air line across the canyon has just been placed in operation.

The first airplane flight over the canyon was made by an army officer, Lieut. Alexander Pearson, on June 10, 1921.

Traversing the canyon by airplane costs approximately two-thirds as much as crossing on mule back.

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With the establishment of the Grand Teton National Park, Wyoming, and the Bryce Canyon National Park, Utah, during the past year there are now 21 members of the national park system.