



Science News-Letter

The Weekly Summary of Current Science

Reg. U. S. Pat. Off.

A Science Service Publication



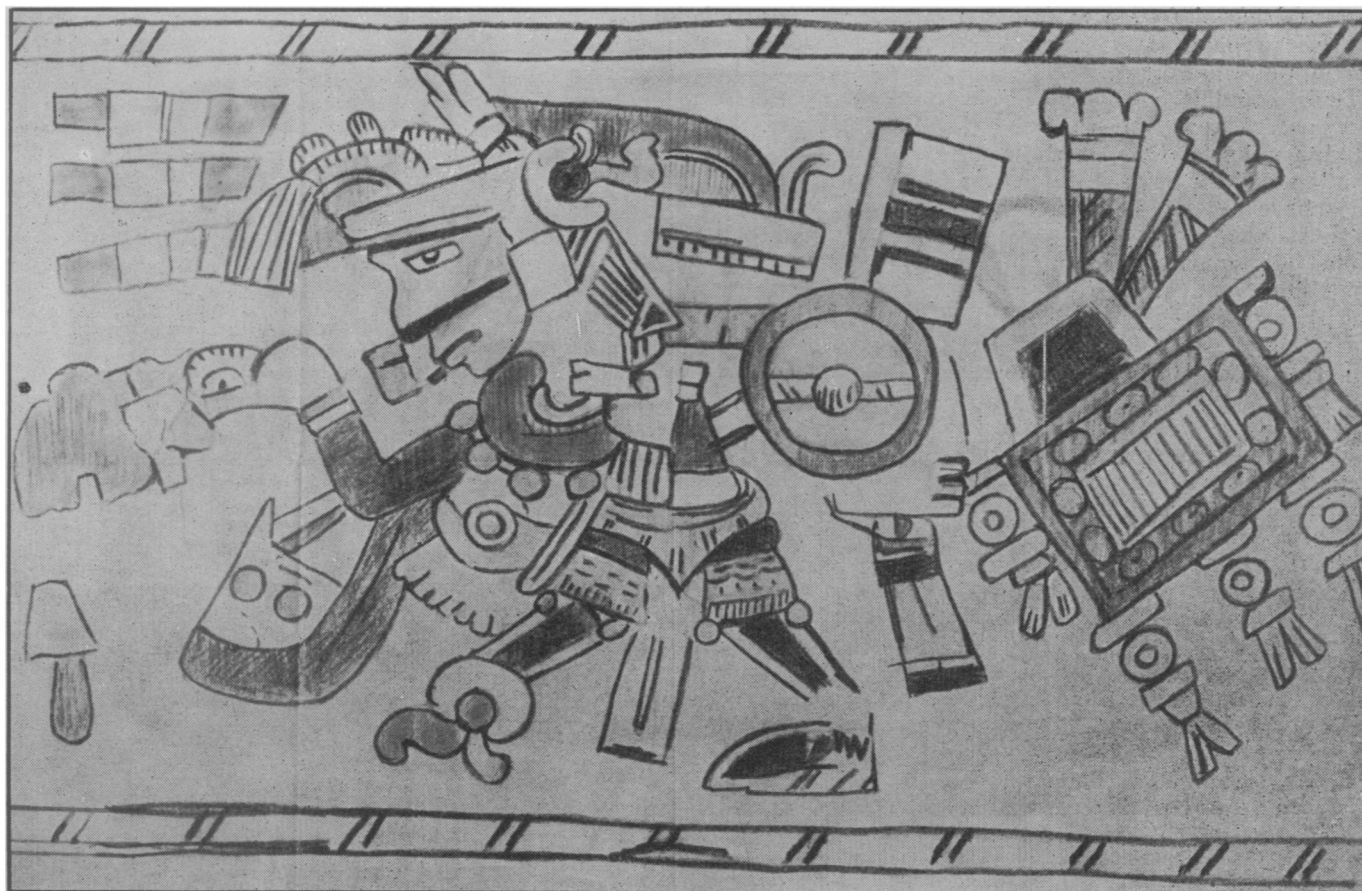
Edited by Watson Davis
Vol. XIII, No. 355.



10¢ a copy \$5 a year
January 28, 1928

ARCHAEOLOGY

Aztec Temple, Sealed Four Centuries Ago, Reopened



TEZCATLIPOCA, great god of the Aztecs. This image of him was copied from one of the frescoes at Tizatlan by the official artist of the department of archaeology of the Mexican Ministry of Education

By EMMA REH STEVENSON

The ruins of a prehistoric Aztec temple recently discovered beneath fragmentary walls of one of the first Christian churches in the new world, near Tizatlan in the Mexican state of Tlaxcala, are gradually yielding their ancient secrets.

Tales of human sacrifice and weird midnight rites of penitence and mortification are told by beautiful fresco paintings on the sides of sacrificial altars found in the temple. Eduardo Noguera, of the Department of Archaeology of the Mexican ministry of education, who is in charge of

excavations at the site, calls these multicolored symbolic pictures true Aztec codices.

This makes the discovery rare in the realms of archaeology, for there are only thirty odd Mexican codices in existence. These historical, chronological or religious records in picture form of ancient American races are scattered throughout the museums of the world, in Florence, Vienna, London, Rome, Paris, Mexico City and elsewhere. They are on prehistoric paper of maguey or on parchment, or in case of codices made by the Indians after the Conquest, on

European paper or linen, but it is very unusual to find them painted on the walls of buildings.

The discovery of the Tlaxcalan temple once more flashes the strange life lived centuries ago in America on the screen of today.

The Tlaxcalans were an insurgent branch of the Aztec family. When almost all the rest of Mexico bowed to the yoke of the Montezumas, they built a wall around their sturdy mountain republic and continued their peaceful pursuits well protected

(Just turn the page)

INDEX TO THIS ISSUE

Accidents and Blood Pressure.....	51	Diphtheria Germs, Electric Charges of.....	57	Influenza Death Rate Cut.....	55	Noguera, Eduardo.....	49
Appetite, Cause of Lost.....	61	Dodge, Raymond.....	63	Jenkins, C. Francis.....	51	Pearls, Genuine, Are Your.....	61
Aztec Temple Reopened.....	49	Doyling, M. P.....	61	Jensen, L. B.....	57	Peters, George H.....	51
Bingham, Walter V.....	51	Drummond, J. C.....	61	Jones, Lewis Ralph.....	57	Pines, Scrub.....	55
Black, N. Henry.....	63	Education in a Democratic World.....	61	Kon, S. K.....	61	Polarization of Light.....	59
Blood Pressure and Accidents.....	51	Electric Charges of Germs.....	57	Lerrigo, Marion Olive.....	63	Prisms, Nicol.....	59
Brody, Samuel.....	57	Elementary Conditions of Human Variability.....	63	Life, Character and Conduct of.....	63	Rabbits and Calves Grow Fast.....	57
Burlingame, Frances M.....	63	Falk, I. S.....	57	Lyell, Anti-Simian.....	63	Radcliffe, Lewis.....	61
Burton, Ernest DeWitt.....	63	Freud, Sigmund.....	63	Making Citizens of Mentally Limited.....	63	Reisner, Edward H.....	63
Camera, Chronoteine.....	51	Growth Comparisons Between Children and Animals.....	57	Manual for Small Museums.....	63	Sawyer, E. J.....	57
Canada to Count Musk Oxen.....	55	Hartzog, Henry S.....	63	Manuscripts, Where and How to Sell.....	63	Scrub Pines.....	55
Cashman, Denis F.....	57	Harvard Tests: Elementary Physics, Form B.....	63	Maya Skeletons, Hundred.....	59	Slocombe, C. S.....	51
Character and Conduct of Life.....	63	Health Behavior.....	63	McCourtie, William B.....	63	Sun Spot, Great, Crosses Sun.....	51
Chronoteine Camera.....	51	Health Examination, How to Make Periodic.....	63	McDougall, William.....	63	Temple Reopened, Aztec.....	49
Classics of Science.....	59	Historical Foundations of Modern Education.....	63	Medicine, Triumphs of.....	63	Ward, Henshaw.....	63
Coleman, Laurence Vail.....	63	Hoare, W. H. B.....	55	Mills, J. H.....	57	Weyl, Walter E.....	63
College, The Changing.....	63			Moon with Opera Glasses.....	55	Whipple, Helen Davis.....	63
Coyote Hunt.....	57			Movies at 3200 Pictures a Second.....	51	Wilkins, Ernest Hatch.....	63
Death Rate Generally Low.....	55			Nature Ramblings.....	55	Williams, G. D.....	59
Delusion and Dream.....	63			Nicol, James.....	59	Wood, Thomas D.....	63
Democracy, The New.....	63					World Flight Not Yet Made.....	57
						Yellowstone Bighorns Fight.....	61
						Science News-Letter, Jan. 28, 1928	

Sealed Aztec Temple Reopened

(Continued from page 49)

by their reputation as the fiercest warriors in Mexico.

Their republic was divided into four parts, each governed by its hereditary lord. One of these was Tizatlan, and the ruins just excavated are believed to be the temple of its last lord, Xicotencatl.

The Tlaxcalans balked at becoming allies to Cortez, even against their hereditary enemies the Aztecs under Montezuma at Mexico City, until they had been defeated in several fierce encounters by the European soldiers mounted on curious animals and carrying deadly fire-spitting arms.

Young Xicotencatl, son of the old lord of Tizatlan, was never "sold" on the Conquistadores who had come marching up from Vera Cruz. He hid the treasure of his house from the greedy eyes of the white men, and when they least expected it he turned traitor toward them but was found out and executed. The whereabouts of his treasure, however, was never disclosed and has come down only as a legend to his present-day descendants in the mud hut and cactus village of Tizatlan.

The discovery of the temple ruins is but the last chapter in a 400 year old tale of buried treasure. A queer young Indian of Tizatlan named Panfilo Sanchez, and a direct descendant of Xicotencatl, claimed that his ancestor appeared to him in a dream a number of times and led him to the spot where the treasure was supposed to be buried.

All Tizatlan began to dig at the place marked out in the dream, with the result that the ruins of the ancestral temple of the ancient republic were discovered. No gold or gems were found, but the sacrificial altars with their gorgeous frescoes, more beautifully preserved than the ruins of the Christian church which covered the site four centuries ago, are real treasures in the eyes of scientists.

Two weeks after the natives of the village began their hasty digging, the Mexican Department of Archaeology took charge of the work and continued the excavations in a scientific manner.

The ruins are on the highest part of an artificial hill. The temple was probably erected in honor of Camaxtli, Aztec hunting god and the principal deity of the Tlaxcalans, Senor Noguera believes. It shows signs of violent destruction and was probably smashed by the invaders and replaced with a Christian church by the Spaniards, who used the spots sacred under the old religion as shrines for the new. A second Christian church, younger than the first, but already long in disuse, stands at the side.

Its back rooms, facing a sunny patio, have been used as a rural school for the last three years, incidentally the first school in the village of Tizatlan in four hundred years. One of the class rooms, filled with brown children busy at their varied tasks, serves also as a museum for the objects dug up in the ruins by the Indians and the government archaeologists.

The ruins are in the shape of a quadrangle in the center of which there are two stone platforms about a foot and a half high, four feet wide and six feet long. They are painted on three sides with colorful motives symbolic of sacrifice and death. The short front walls are divided down the middle by a vertical canal, probably for the collection of that sacred liquid offered to the Creator, the most precious thing a human had to offer, his own blood.

The fourth and unpainted sides of the two altars are flanked by a series of pillars badly broken by the treasure hunters. They are of plastered adobe with cores of wood within. A stairway made of true brick, the finest encountered in prehistoric American ruins, leads down to unknown

(Turn to page 53)



SCIENCE NEWS-LETTER, The Weekly Summary of Current Science. Published by Science Service, Inc., the Institution for the Popularization of Science organized under the auspices of the National Academy of Sciences, the National Research Council and the American Association for the Advancement of Science.

Publication Office, 1918 Harford Ave., Baltimore, Md. Editorial and Executive Office, 21st and B Sts., N. W., Washington, D. C. Address all communications to Washington, D. C.

Entered as second class matter October 1, 1926, at the postoffice at Baltimore, Md., under the act of March 3, 1879. Established in mimeograph form March 13, 1922. Title registered as trade-mark, U. S. Patent Office.

Subscription rate—\$5.00 a year postpaid. 10 cents a copy. Ten or more copies to same address, 5 cents a copy. Special reduced subscription rates are available to members of the American Association for the Advancement of Science.

Advertising rates furnished on application.

Copyright 1928, by Science Service, Inc. Reproduction of any portion of the SCIENCE NEWS-LETTER is strictly prohibited since it is distributed for personal, school, club or library use only. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicate services issued by Science Service, details and samples of which will be gladly sent on request.

Staff of Science Service—Director, Edwin E. Slosson; Managing Editor, Watson Davis; Staff Writers, Frank Thone, James Stokley, Emily O. Davis, Marjorie MacDill; Sales and Advertising Manager, Hallie Jenkins.

Board of Trustees of Science Service—Representing the American Association for the Advancement of Science, J. McKee Cattell, Treasurer, Editor, Science, Garrison, N. Y.; D. T. MacDougall, Director, Desert Laboratory, Tucson, Ariz.; M. I. Pupin, Professor of Electromechanics, Columbia University, New York City. Representing the National Academy of Sciences, John C. Merriam, President, Carnegie Institution of Washington; R. A. Millikan, Director, Norman Bridge Laboratory of Physics, California Institute of Technology, Pasadena, Calif.; Dr. David White, Chairman of the Division of Geology and Geography, National Research Council. Representing National Research Council, Vernon Kellogg, Vice-President and Chairman of Executive Committee, Permanent Secretary, National Research Council, Washington, D. C.; C. G. Abbot, Director, Astro-Physical Observatory, Smithsonian Institution, Washington, D. C.; Victor C. Vaughan, Professor Emeritus of Hygiene, University of Michigan. Representing Journalistic Profession, John H. Finley, Associate Editor, New York Times; Mark Sullivan, Writer, Washington, D. C.; Marlen E. Pew, Editor of Editor and Publisher, New York City. Representing E. W. Scripps Estate, W. E. Ritter, President, University of California; Robert P. Scripps, Scripps-Howard Newspapers, West Chester, Ohio; Thomas L. Sidlo, Cleveland, Ohio.

Sealed Aztec Temple Reopened

(Continued from page 50)

depths in the temple which have not yet been uncovered.

Many small idols and ornaments of baked clay and stone have been found within the ruins, in addition to many examples of finely painted pottery, clay whistles, clay nails, and other objects beautifully decorated in the rich colors the Aztecs loved.

But the real treasures are the two sacrificial altars with their precious codices.

The most striking figure on the west altar front is the warlike Tezcatlipoca, of serious mien and gorgeous trappings. He was the Divine Providence of the Aztecs, the soul of the world, the creator of heaven and earth, the lord of all things.

His figure in the frescoes stands taut, having just let fly an "atlatl," or spear, from his right hand. His body, arms and legs are black, and his face is yellow with a black stripe. He wears a blue ornament in his nose and a blue and yellow trident feather headdress in his hair.

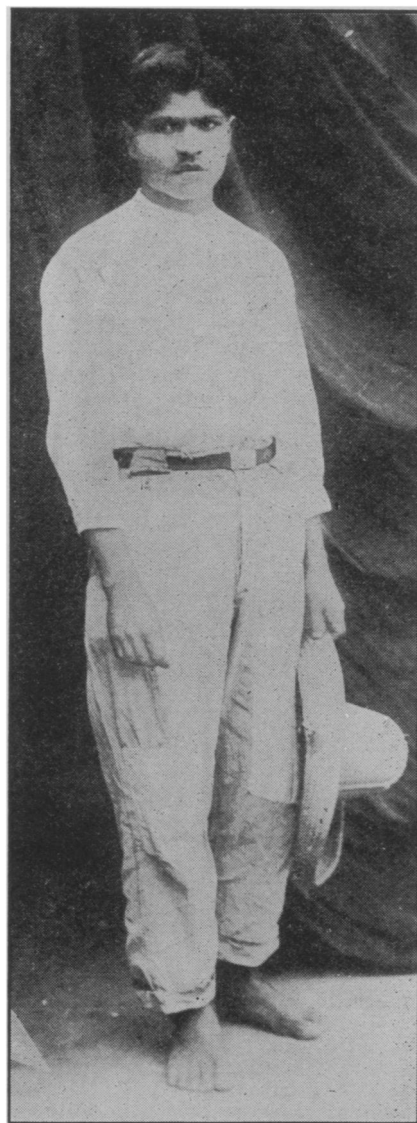
On his breast he wears a blue ornament with dangling cascabels of gold, ancient Aztec symbols of relationship with the Evening Star. On his temple he wears the "smoking mirror," the emblem of war as well as the meaning of his name, "Tezcatlipoca." He has another "smoking mirror" in place of his right foot, and from each of these curious objects issue yellow fire and blue water. In his right hand he carries a purse of precious copal gum, ready to burn for the sacrifice, and in his left he carries a shield.

On one side of Texcatlipoca stands Tonatiuh, the Aztec Sun-God, looking toward heaven. He too carries a bag of copal and in addition a sharpened femur bone and spines of the maguey plant, characteristic instruments of self-torture.

On the other side stands the warlike figure of gruesome Mictlantecuhtli, God of Death, his body a skeleton and his head a cranium. He has thrown about him a mantle of blue and he too has hurled a spear.

The other sides of the altar have wide horizontal bands with symbolic representations of the human heart, cranium, and hand, repeated symmetrically in red on a background of black.

The east altar has a series of pictures which were more difficult to decipher, but they contained the real key to the true significance of the temple.



PANFILO SANCHEZ, lineal descendant of Xicotencatl, chief of Tizatlan four centuries ago. He discovered the temple, and claimed to have been guided to it by dreams of buried treasure

The short front face of this altar is covered with brilliantly colored drawings of various divinities grouped around a central female figure of a yellow goddess swimming in blue water. Comparison with similar paintings on various other Aztec codices showed that this was the Goddess of Impure Love.

At her right stands a yellow tiger with black spots. His eyes are large disks, divided by a horizontal line, with the upper half white and the lower half red. On the other side of the goddess stands an eagle with his wings outspread.

The long sides of the altar are decorated with a checkerboard effect of double rows of thirteen squares containing various symbols. There are many curious conventionalized figures of scorpions, instruments of torture, and blood-signs, as well as the same conventionalized human

hearts, heads and craniums that are found on the first altar.

Archæologists find that the scorpion has various meanings among the old Aztecs. It was the sacred animal of the God of Fire as well as of the God of Death. In some codices the scorpion is the symbol for boiling water, probably because its sensation is the same as the sting of the animal, from which connection it may also symbolize fire.

In the Tizatlan codices, however, the scorpion represents self-sacrifice, mortification and penitence, Senor Noguera concludes. These figures of scorpions speak eloquently of intense fanaticism, of self-inflicted wounds in return for victory in battle, in expiation of sins, or for future blessings sought.

"These altar paintings are the evidence of exalted religious ideals of the race," Senor Noguera said. "The art is primitive and far removed from our own type of mentality, but nevertheless admirable for its execution and finish."

No greater religious spirit moved the medieval European artists who painted Christian saints and madonnas on chapel walls than inspired the passionate painter who left other ideals of crucifixion on heathen altar sides in the American wilderness.

Every motive in the paintings typifies some phase of Aztec sacrificial rites, and the whole series of pictures is a complete allegory showing the intensity of religious fervor and revealing the painful means by which it found expression.

Midnight was the hour for the weird rites symbolized in the paintings on the holy altar sides. The eyes of the scorpions and the other animals are shown as disks divided by a horizontal line, with the top half of one color and the bottom of another. This divided eye is the Aztec symbol of midnight.

At this hour sounded the caracols or sea-shell trumpets of the temples and awakened the priests, who formed a strange procession to the top of the temple. There they performed their bloody sacrifices. According to the colonial historian Sahagun, the Aztec word for midnight is "tatlapitzalizpan netetequizpan," or "when the caracols sound and the flesh is wounded."

There is no indication of a date or of any detail which will give an idea of the time of the pictures. They are the symbols of some great seasonal fiesta or of a dedication to some deity in whose honor the altars were built.