

GENERAL SCIENCE

Indians To Live As In Wild On Exposition Grounds

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the lake front, beyond concession buildings designed to amuse or convince the throngs commercially, is an area devoted to America's aborigines.

Rising to a commanding position is a reproduction of one of America's earliest and most striking architectural developments, a Maya temple. With strange carvings of huge mask heads, great serpents and other elaborate designs, painted brilliant yellow and green, there is duplicated a portion of the Monjas or Nunnery at Uxmal in Yucatan, built by the Maya Indians many years before Columbus discovered America. Within it can be seen some of the most valuable of the Maya treasures loaned by American museums.

In the shadow of the Maya temple five groups of American Indians will live primitive existences as their ancestors did before them. This will be their contribution to the Century of Progress. Nootka Indians from the American northwest will raise their totem poles. Winnebagos in wigwams will represent the woodland tribes. The plains Indians whose existence depended upon the buffalo will be represented by a group of Sioux Indians living in tipis, while the Pueblos will dwell in reproductions of their terraced villages, which were America's earliest apartment houses.

Navahos, too, will show the part they played in the old Southwest. For the visitors these Indians will dance their ceremonials and sing their chants.

Close by the Indian villages and the Maya temple are the exhibition buildings of leading automobile manufacturers. Here may be seen the operating assembly line where complete cars are built from piles of parts.

The pageant of a century of transportation will be shown under the gigantic sky-hung dome of the travel and transport building, so large that railroad cars and transport airplanes seem lost beneath it. Along the lake front will be found famous ships of today and yesterday.

Science News Letter, June 3, 1933

ANATOMY

Two Mechanical Men Explain Body's Mechanism

See Front Cover

MECHANICAL men reveal to the visitors of the Century of Progress expedition the physiology and chemistry of the human body.

The famous transparent man, manufactured in Germany, as a life-sized display of the vital organs of human anatomy is a central exhibit in the medi-

cal section of the Hall of Science. He is illustrated on the front cover of this week's Science News Letter.

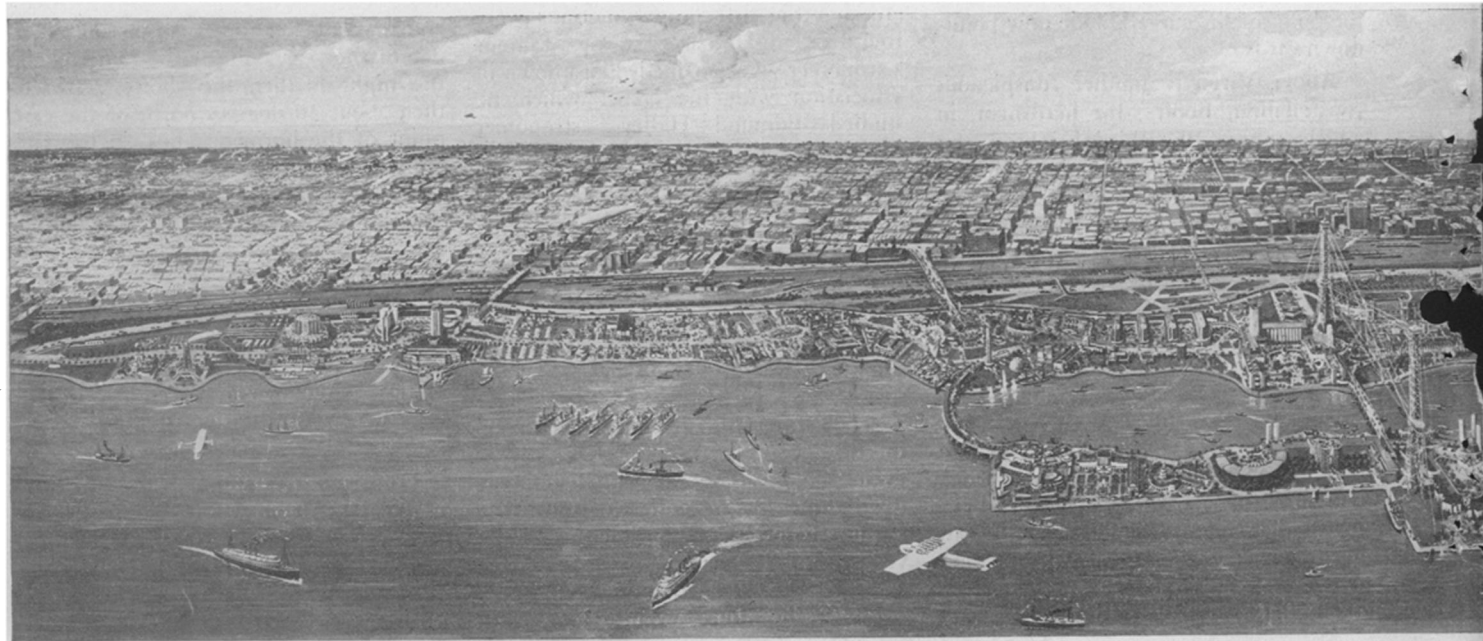
The life-sized model transparent man obtained by the Century of Progress from the famous Hygiene Museum at Dresden has his exterior made of a synthetic transparent material. Heart, lungs, the stomach, liver and other interior organs are lighted in rotation to show vividly to the visitor their relation to the surface of the skin.

An American robot, ten feet high, who speaks and gestures, and explains an illuminated interior view of himself is a part of the chemical exhibit.

"Now ladies and gentlemen, I shall swallow," the chemical robot tells his audience many times each day in exhibiting the mechanical movements of his stomach and intestines by illuminated dynamic pictures of his interior. "You will see the mouthful of food passing down my esophagus. The food is forced down by the contractions of the esophagus. Now you see the swallow entering the top door of my stomach. Watch my stomach contract to churn up the food."

The robot, who is a handsome well-dressed young man except for the fact that his upper garments are pulled aside to show his digestive area, can point to the various happenings within him. He gives practical advice to the audience upon nutrition and the kinds of food that should be eaten.

A talking motion picture provides both the speech and the interior views of the robot, while ingenious mechanisms allow him to wave his arms when he orates.

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151-Word History of Science Written on Building Wall

THE HISTORY of science has been written in 151 words of lyric prose and lettered upon the wall of the principal exhibition room of the Century of Progress Hall of Science here for visitors to read this summer.

The text, written by Dr. Henry Crew, formerly professor of physics at Northwestern University and now head of the division of basic science of the Century of Progress, is as follows:

Pythagoras named the cosmos; Euclid shaped geometry . . . Archimedes physics.

Xenophanes gazing upon the Heavens saw them to be one. Copernicus placed central in that one, our shining sun.

In the motions of physical bodies Galileo beheld law; thence Newton and the principle of universal gravitation.

Democritus glimpsed the atomic theory of the structure of matter; Dalton established it.

When in the nineteenth century Lamarck and Darwin formulated the great principle of organic evolution, the science of life was first seen as a cosmic progression of nature.

For the saving of life through inoculation men give honor to Jenner and Pasteur.

The Century of Progress saw Oersted and Faraday set forth, and Maxwell and Hertz advance the theory of electromagnetism.

Through the Labors of Becquerel, of the Curies and of Thomson, to our own day are revealed fragile atoms and electrons.

Plank's quantum and Einstein's relativity theory open new epochs to science.

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Quotations Explain Purpose of Science

FROM THE VAST literature of science fourteen quotations have been selected and written upon a wall of the Century of Progress Hall of Science as a concise summary of scientific philosophy. Poets and public men as well as scientists are among those who wrote the collected sentences. The quotations are as follows:

Science and peace will triumph over ignorance and war.—Pasteur.

Man is the interpreter of nature . . . Science the right interpretation—Whewell.

Nature never proclaims her secrets aloud, but always whispers them.—John Owen.

Science has but one fashion . . . To lose nothing once gained—Stedman.

There is nothing so powerful as truth, often nothing so strange.—Daniel Webster.

Scientific education is an essential condition of industrial progress.—Huxley.

If there is one way better than another, it is the way of nature—Aristotle.

The first and last thing required of genius is the love of truth.—Goethe.

Nature is not to be governed except through obeying her.—Bacon.

More important than particular truths is the love of truth.—C. J. Little.

The common experiences of normal people are the matter of science.—H. Dingle.

Reason's voice and God's, Nature's and duty's, never are at odds.—Whittier.

The essence of science is to discover identity in difference.—F. S. Marvin.

Scientific law is a description, not a prescription.—Karl Pearson.

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Nineteen of the world's greatest scientists have their names emblazoned on the wall of the Hall of Science. The scientists and the fields of their researches are: Aristotle, Biology; Archimedes, Mathematics; Euclid, Mathematics; Hipparchus, Astronomy; Leonardo, Anatomy; Galileo, Physics; Huygens, Astronomy; Harvey, Physiology; Newton, Mathematics; Lavoisier, Chemistry; Dalton, Chemistry; Darwin, Biology; Pasteur, Medicine; Faraday, Physics; Helmholtz, Physics; Maxwell, Physics; Mendelejeff, Chemistry; Rowland, Physics; and Michelson, Physics.

SCIENCE IN REVIEW

Stretching along Chicago's water-front for a distance of $3\frac{1}{2}$ miles and covering 424 acres, Chicago's Century of Progress consists of hundreds of buildings. The Southern (left in picture) end of the exhibition has as its most prominent feature the gigantic travel and transport building with the hanging dome. To the left of this structure are railroad yards where trains are on exhibition. Next prominently to the right are the Chrysler and General Motors buildings housing commercial automobile exhibits. The 31st street overpass (first from left) spanning the railroad and auto boulevard, brings visitors directly to the Maya temple reconstruction. To its right may be seen the wigwams and tipis of Indian tribes on exhibition, while closer to the lake are the tents of the regular army exhibit camp. From this point to the curved bridge leading to Northerly Island, commercial and entertainment concessions are located.

On the island at its left end is the fair's motion picture colony and "Hollywood," next is the horticultural building, and then the electrical and communications buildings. The Hall of Social Sciences is at the foot of the island Skyride tower. To the right of the tower is the hall of states and the federal building. The long, low-lying semi-cylindrical building is devoted to agriculture and on the tip of the island lakeward is the permanent Adler planetarium housing astronomical exhibits. The great Hall of Science is to the left of the other Skyride tower. To its left are four identical buildings devoted to general exhibits.

