

ARCHAEOLOGY

Identify Clay Statue as Mexico's "Old, Old God"

► A CLAY statute of highland Mexico's "old, old god," excavated from a burial mound on the Veracruz coast ten years ago by a Smithsonian Institution-National Geographic Society expedition, has turned out to be one of the most notable objects of artistry yet found.

When the statue was dug up by Dr. Matthew W. Stirling, director of the Smithsonian's Bureau of American Ethnology, it was in fragments. The pieces were mingled with the bones of a child. Apparently the figure had been deliberately smashed as an offering at some important ancient Indian ceremony.

After several years of laborious work, the statue has now been pieced together by experts at the Museo Nacional of Mexico, Mexico City. It proved to be an extraordinary piece of artistry, reports Dr. Philip Drucker of the Smithsonian. Nearly three feet high, the restored statue is that of an old man carrying on his head a brazier, such as was used by the Aztecs to carry burning coals.

Once the statue was restored, says Dr. Drucker, it was not difficult to identify it with the fire god known to the Aztecs as Xiuhtecutli, a sort of Mexican Prometheus, the most important of the minor gods whose cult flourished during the time of the Aztecs through the Valley of Mexico. He also was known as Huehuetotl, the old, old god—the most ancient of the Aztec divinities, upon whose aged body the job of carrying fire to the world was heavy.

Science News Letter, February 21, 1953

NUTRITION

Fresh Cabbage Helps Put Vitamin C in Meals

► NEWS THAT there will be plenty of crisp, fresh new cabbage in markets generally throughout the country is good news, because cabbage is an excellent source of vitamin C and at this late winter season, family meals are likely to be skimpy in this vitamin.

Vitamin C is also known as the anti-scurvy vitamin and by its chemical name, ascorbic acid. Besides preventing and curing scurvy, it plays a big part in helping to keep body tissues healthy.

To get the most vitamin value from cabbage, as well as for appetizing crispness and flavor, serve it raw in salads and fresh relishes, advise nutritionists of the U. S. Bureau of Human Nutrition and Home Economics.

For a hot vegetable, save vitamin value and time by quick cooking in a small quantity of water. Raw cabbage combines well with many different foods so that cabbage salad need never become monotonous.

Here are some suggested combinations: Shredded cabbage, orange sections and

crushed pineapple; shredded cabbage with slivers of celery, carrots and raisins; shredded cabbage with onions sliced in thin rings, mixed with well-seasoned mayonnaise or other salad dressing and served on a cabbage leaf.

Sweet potatoes are another good vitamin C source at this season because they keep a high proportion of their vitamins during curing and storage. One medium sized sweet potato gives at least one-third of the vitamin C needed for the day.

Citrus fruits, tomatoes and fresh greens are other good vitamin C sources. One quart of milk supplies almost half the minimum daily requirement.

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INVENTION

Patented Devices Aid Spring Training

► SPRING TRAINING being nearly upon us, inventors are turning to baseball as a field for their talents. Among recent inventions are a new kind of mask for umpires and catchers, and a new pitcher's practice target.

The mask, invented by Hugo Goldsmith, Cincinnati, and assigned to Sport Products, Inc., of the same city, permits the umpire to see better, a feature said to be desired by many ball players. The face piece is formed of one piece of light-weight metal shaped so that there is a chin piece, a bar across the nose, one across the forehead, and one rising above the head.

The side pieces are set far enough back so the field of vision is widened. The whole is cushioned and the harness is so designed that the mask cannot slip down. Patent number is 2,627,602.

The pitcher's control practice target consists of a frame holding a canvas upon which can be painted either a bull's-eye or a representation of a player at bat. The canvas is held securely at the top, but allowed to ride up, upon impact of the pitched ball, from the bottom. Inventor is Chester J. Lecznar, Detroit, and his patent number is 2,628,097.

Science News Letter, February 21, 1953

MEDICINE

Women Can Have Hemophilia, Too

► WOMEN CAN have hemophilia, contrary to popular and medical reports, four Dallas scientists reported at a Symposium on Blood in Detroit.

It has been thought that only males had this hereditary "bleeder's disease," while the women of the family transmitted it without having it themselves.

The report on female hemophiliacs was made by Drs. J. M. Hill, Gwendolyn Crass, John Ellis and K. P. Wittstruck of the Wadley Research Institute and Blood Center, Dallas, Texas.

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IN SCIEN

VITAL STATISTICS

Average Life Length Up 4 Years in Decade

► THE AVERAGE American wage earner's length of life increased by a little over four years in the last decade, the Metropolitan Life Insurance Company announced in New York on the basis of 1952 figures for its industrial policyholders.

Reaching almost the Biblical three-score-and-ten, the average length of life for this group now is 68 and one-half years.

In spite of a record-breaking polio epidemic and a sultry summer which caused an unusually large number of deaths from heat exhaustion, the death rate among this group was on a level with the all-time low recorded in 1950.

The death rate for each of the major chronic diseases of middle and later life declined. Mortality from diseases of the heart, arteries and kidneys was down almost two percent. Cancer deaths declined from 123.5 per 100,000 in 1951 to 122.5 per 100,000 in 1952. Diabetes deaths went down from 15.2 to 14.0 per 100,000.

Deaths from disorders of pregnancy and childbirth reached a new low in the insurance experience. Death rates from pneumonia and influenza, and from the principal communicable diseases of childhood all were at all-time lows.

The tuberculosis death rate among these policyholders dropped 25% during the year to a new low of 13.5 per 100,000.

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ZOOLOGY

Watch Dogs Help Guard Strategic Korean Posts**See Front Cover**

► SHOWN ON the cover of this week's SCIENCE NEWS LETTER is a U. S. Air Force guard standing duty at an airstrip of the Eighth Fighter Bomber Wing in South Korea, aided by a specially-trained watch dog.

At present, there are well over 2,000 such dogs being processed, trained and used by the armed services. Although during the last war, dogs were borrowed from their individual owners, those required are now being bought outright, a more practical, less expensive system, it is reported.

Army dogs are not used as attack dogs, but simply to detect and indicate the presence of unauthorized persons. If cornered or to protect their handlers in an emergency, they may attack, but they are not trained primarily for that purpose.

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CE FIELDS

CHEMISTRY

Preservatives Protect Wooden Fence Posts

► FARMERS AND stockmen may be saved a good deal of money through new types of preservative treatment for wooden fence posts.

Two scientists at the University of California, L. W. Neubauer and R. F. Grah, recently completed tests with the preservative, pentachlorophenol, in diesel oil.

Using penta, which is known to be a good preservative of wood and is easy to handle, they conducted tests on the absorption rates of this chemical in posts of various species of wood. The treatments included common cold soaking, incising, end coating, burning and spraying. Incised posts absorbed the most oil, but may not prove the most durable if incisions are too deep or too numerous.

The tests showed that although a wide range of absorption exists in different species, the sapwood of hardwoods generally absorbed treatments more rapidly than the sapwood of softwoods.

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OPERATIONS RESEARCH

Growth "Yardstick" For Tastier Vegetables

► TASTIER FROZEN vegetables could be available if farmers followed a new growing "yardstick" announced by C. W. Thornthwaite of Seabrook Farms, Inc., Bridgeton, N. J., in a report to the Operations Research Society of America. The vegetables would always be picked and processed on the day they just ripen.

A pea plant is used as a yardstick for the planting and harvesting program. The growth rate of other plants—sweet corn, snap beans, lima beans or spinach, for instance—is tied to that of peas.

The pea plant was chosen as a yardstick because it grows from one growing point alone, that is, it comes up and forms a node, grows from this to form another node, etc. The nodes develop at a high rate in summer, and at slower rates in the early spring and late fall. Using the average of several years, this node development is translated into "growth units."

Seeds of the desired crop are planted according to the "growth unit days" that should lapse before the harvesting time most appropriate for the best use of available manpower and harvesting and processing equipment. To get, for instance, 15-acre plots of peas just ripe for harvesting one plot daily, one field would be planted on March 5, the neighboring field on March 9. Planting season can be shortened

by using slower-growing varieties for the later harvest dates. In this way, the plants mature at intervals throughout the harvest season, the faster-growing varieties first, the slower-growing ones later.

This system's virtue is that the only uncertainty in the schedule is the weather during the harvest season itself. Details for making the climatic calendar appear in the *Journal of the Operations Research Society of America* (Feb.).

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MEDICINE

Cancer, Not Alcohol, Causes "Whisky Tenors"

► IF YOU think that "whisky tenors" are all victims of Demon Rum, think again. Chances are that most of them may be suffering from cancer of the larynx.

Dr. Joel Pressman, professor of surgery in the School of Medicine at the University of California at Los Angeles, has pointed out that cancer of the larynx early manifests itself by prolonged hoarseness.

"It is the only form of cancer which shows such an obvious symptom in its early stages," he said, "yet few people go to the doctor until the condition has been prevalent for six months or more."

With early diagnosis, most cancers of the larynx can be successfully treated with modern surgical and radiological techniques, and a normal or nearly normal voice be restored.

"There is no definite evidence that smoking is a contributing factor to cancer of the larynx," Dr. Pressman says. "On the other hand, there is no conclusive proof that it is not. Cancer of the larynx only constitutes two percent of all types of cancer."

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MEDICINE

Question Easy Life Promotes Heart Ills

► WHETHER THE "life of Reilly" really favors earlier occurrence of coronary heart disease, high blood pressure and diabetes is not known and should be investigated through research throughout the world.

The need for this study was pointed out by Dr. Paul D. White, internationally known heart specialist, on receiving the first Albert Lasker Award for achievement in the field of cardiovascular diseases. The award consists of \$1,000 and a gold statuette of the Winged Victory of Samothrace.

The "life of Reilly" research would have to be done abroad, Dr. White thinks, because several decades of a leveling process in the United States have resulted in it being difficult to compare hundreds or thousands of hard laborers who are not over-nourished with an equal number of men in the professions, business and public life who are over-nourished and leading a soft life physically.

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CYTOLOGY

New Cells From Embryos Frozen at Minus 320° F.

► LIVE BABY chicks from embryos that were frozen, thawed and then incubated in artificial eggs will, it is hoped, soon hatch out in laboratories at St. Louis University, Mo.

The experiments, which have been going on for over two years, were reported by Prof. Basile J. Luyet at the meeting of the Society of University Surgeons in St. Louis.

The embryos were first treated with ethylene glycol and then frozen in liquid nitrogen at 320 degrees below Fahrenheit. To thaw them, they were plunged into a warming bath of Tyrode solution, containing various salts, at a temperature of about 100 degrees Fahrenheit. The embryos were then transferred to a watch glass containing Tyrode solution, and placed on a warming stage under the binocular stereoscopic microscope to watch the heart.

The first successful experiment was completed in 1950 after nearly 100 unsuccessful attempts. Since then, 38 out of 65 embryos have survived the solidification and freezing. Many irregularities of the heart beat were seen, and some frozen embryo hearts continued to beat for only a half hour after the warming.

Some embryos, however, have survived the freezing and thawing long enough to develop new cells. In the current experiments, these embryos are being incubated in an environment as nearly as possible like that in the hen's egg.

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INVENTION

Automobile-Airplane Combination Patented

► A COMBINATION automobile-airplane which, according to the inventor, gets around the problems of the different structural and weight characteristics of planes and cars has been invented.

In airplanes, the job is to minimize as much as possible the gross weight and the overall proportions of the plane. Thus when the automobile part of the combination is detached from the wings, tail structure and motor, it is at a disadvantage on the highway.

Theodore P. Hall, San Diego, Calif., who received patent 2,619,184, has designed a combination automobile-airplane fuselage which has a central unitary frame disposed vertically and passing through the fore and aft axis of the body. This provides the strength necessary in an automobile, supports all of the principal loads, and provides the logical place to which to attach the airplane components.

Another patent, for improvements on the same vehicle, provides for separate controls to be used for flight and for highway travel. This is patent number 2,619,301.

Science News Letter, February 21, 1953